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Section 1

General Information

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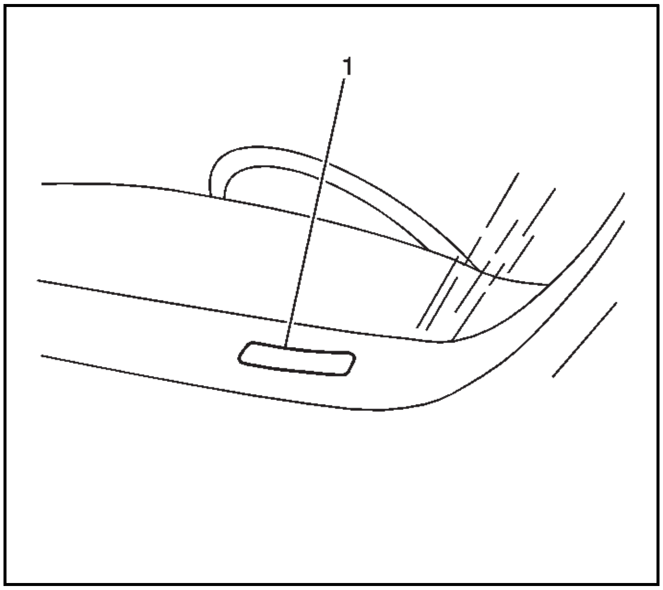
General Information

Introduction

Vehicle, Engine and Transmission ID and VIN Location, Derivative and Usage (Chevrolet)



65474

The VIN plate is the legal identifier of the vehicle. The VIN plate (1) is located on the upper left corner of the instrument panel (I/P) and can be seen through the windshield from the outside of the vehicle:

Vehicle Identification Number (VIN) System

Position	Definition	Character	Description
1	Region of Build	1	United States
2	Manufacturer	G	General Motors
		H	Navistar Inc.
3	Vehicle Brand/Type	A	Chevrolet Bus (Non School Bus)
		B	Chevrolet Incomplete Truck
		C	Chevrolet Truck
		A	Chevrolet Incomplete Truck (Navistar Only)

Vehicle Identification Number (VIN) System (cont'd)

Position	Definition	Character	Description
4	GVWR/Brake System/Body Style	W	8,001–9,000 lbs/Hydraulic/Cargo Van/Four Door Cab/ Utility or Passenger Van
		Y	8,001–9,000 lbs/Hydraulic/Commercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
		Z	9,001–10,000 lbs/Hydraulic/Cargo Van/Four Door Cab/ Utility or Passenger Van
		0	9,001–10,000 lbs/Hydraulic/Commercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
		3	10,001–14,000 lbs/HydraulicCommercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
		6	14,001–16,000 lbs/Hydraulic/Commercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
5–6	Chassis/Series	G/A	Chevrolet Express, 2500 Cargo
		G/B	Chevrolet Express, 2500 Cargo EXT
		G/E	Chevrolet Express, 2500 Passenger LS
		G/F	Chevrolet Express, 2500 Passenger LT
		G/G	Chevrolet Express, 3500 Cargo
		G/H	Chevrolet Express, 3500 Cargo EXT
		G/L	Chevrolet Express, 3500 Passenger LS
		G/M	Chevrolet Express, 3500 Passenger LT
		G/N	Chevrolet Express, 3500 Passenger LS EXT
		G/P	Chevrolet Express, 3500 Passenger LT EXT
		G/R	Chevrolet Express, 3500 Cutaway 139" Wheelbase
		G/S	Chevrolet Express, 3500 Cutaway 159" Wheelbase
		G/T	4x2, Chevrolet Express, 3500 Cutaway 177" Wheelbase
		G/U	Chevrolet Express, 4500 Cutaway 159" Wheelbase
		G/V	Chevrolet Express, 4500 Cutaway 177" Wheelbase
		G/9	Chevrolet Express (Non-US, Non-Canada)
7	Restraint System	B	AJ3 − Active Manual Belts, Airbag − Driver only − Front
		C	AK5 − Active Manual Belts, Airbag – Driver and Passenger – Front (1st row)
		F	AK5 & ASF − Active Manual Belts, Airbags - Driver & Passenger - Front (1st row), Front Seat Side (1st row), Roof Side (All seating rows for vehicles with 3 or fewer seating rows; 1st, 2nd and 3rd row for vehicles with 4 or more seating rows)
		H	AJ3 & ASF - Active Manual Belts, Airbag - Driver only - Front, Front Seat Side (1st row), Roof Side (All seating rows for vehicles with 3 or fewer seating rows; 1st, 2nd and 3rd row for vehicles with 4 or more seating rows)
8	Engine Type	B	RPO LC8 – Flexible Fuel, (LPG/CNG), 8 CYL, V8, 6.0L, SFI, GEN 1, GMNA
		G	RPO L96 – Flexible Fuel, (Gas/Ethanol), 8 CYL, 6.0L, SFI, Iron, GM
		P	RPO LV1 – Engine Gas, 6 CYL, 4.3L, SIDI, V6, VVT, E85 MAX, Iron
		1	RPO LWN - Engine Diesel, 2.8L, DI, L4, DOHC, Turbo, XLDE
9	Check Digit	—	Check Digit

Vehicle Identification Number (VIN) System (cont'd)

Position	Definition	Character	Description
10	Model Year	K	2019
11	Plant Location	1	Wentzville
		N	Springfield
12–17	Plant Sequence Number	—	Plant Sequence Number

2.8L RPO LWN Engine ID and VIN Derivative Location

Engine Identification

4.3L RPO LV1 Engine ID and VIN Derivative Location

Engine Identification

6.0L RPO L96, LC8 Engine ID and VIN Derivative Location

Engine Identification

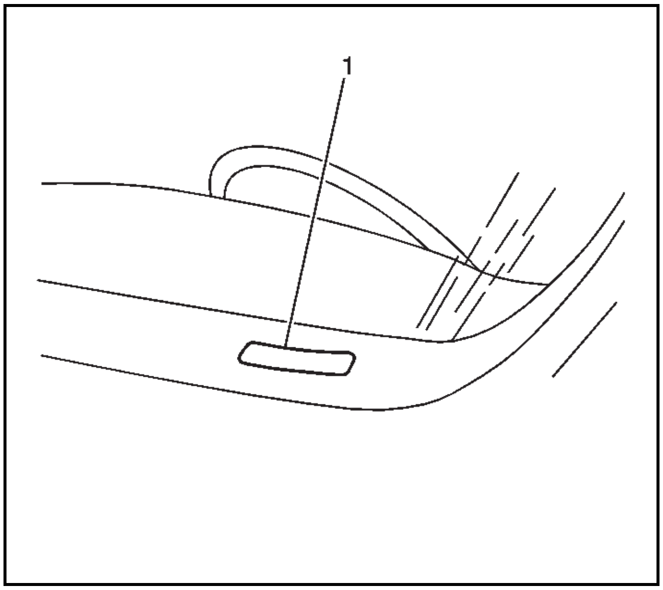
6L90 (MYD) Transmission ID and VIN Derivative Location

Transmission Identification Information

8L90 (M5U) Transmission ID and VIN Derivative Location

Transmission Identification Information

Vehicle, Engine and Transmission ID and VIN Location, Derivative and Usage (GMC Truck)



65474

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Vehicle Identification Number (VIN) System

Position	Definition	Character	Description
1	Region of Build	1	United States
		7	United States
2	Manufacturer	G	General Motors
		G	Navistar Inc. (7GZ Only)
3	Vehicle Brand/Type	D	GMC Incomplete Truck
		J	GMC Bus (Non School Bus)
		T	GMC Truck
		Z	GMC Incomplete Truck (Navistar Only)
4	GVWR/Brake System/Body Style	W	8,001–9,000 lbs/Hydraulic/CargoVan/Four Door Cab/ Utility or Passenger Van
		Y	8,001–9,000 lbs/Hydraulic/Commercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
		Z	9,001–10,000 lbs/Hydraulic/CargoVan/Four Door Cab/ Utility or Passenger Van
		0	9,001–10,000 lbs/Hydraulic/Commercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
		3	10,001–14,000 lbs/Hydraulic/Commercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
		6	14,001–16,000 lbs/Hydraulic/Commercial Special Cutaway, Two Door Cab pick-up or Motor Home Chassis
5–6	Chassis/Series	7/A	GMC Savana, 2500 Cargo
		7/B	GMC Savana, 2500 Cargo EXT
		7/E	GMC Savana, 2500 Passenger LS
		7/F	GMC Savana, 2500 Passenger LT
		7/G	GMC Savana, 3500 Cargo
		7/H	GMC Savana, 3500 Cargo EXT
		7/L	GMC Savana, 3500 Passenger LS
		7/M	GMC Savana, 3500 Passenger LT
		7/N	GMC Savana, 3500 Passenger LS EXT
		7/P	GMC Savana, 3500 Passenger LT EXT
		7/R	GMC Savana, 3500 Cutaway 139" Wheelbase
		7/S	GMC Savana, 3500 Cutaway 159" Wheelbase
		7/T	GMC Savana, 3500 Cutaway 177" Wheelbase
		7/U	GMC Savana, 4500 Cutaway 159" Wheelbase
		7/V	GMC Savana, 4500 Cutaway 177" Wheelbase
		7/9	GMC Savana (Non-US, Non-Canada)

Vehicle Identification Number (VIN) System (cont'd)

Position	Definition	Character	Description
7	Restraint System	B	AJ3 − Active Manual Belts, Airbag − Driver only − Front
		C	AK5 − Active Manual Belts, Airbag – Driver and Passenger – Front (1st row)
		F	AK5 & ASF − Active Manual Belts, Airbags - Driver & Passenger - Front (1st row), Front Seat Side (1st row), Roof Side (All seating rows for vehicles with 3 or fewer seating rows; 1st, 2nd and 3rd row for vehicles with 4 or more seating rows)
		H	AJ3 & ASF — Active Manual belts, Airbag - Driver only - Front, Front Seat Side (1st row), Roof Side (All seating rows for vehicles with 3 or fewer seating rows; 1st, 2nd and 3rd row for vehicles with 4 or more seating rows)
8	Engine Type	B	RPO LC8 – Flexible Fuel, (LPG/CNG), 8 CYL, V8, 6.0L, SFI, GEN 1, GMNA
		G	RPO L96 – Flexible Fuel, (Gas/Ethanol), 8 CYL, 6.0L, SFI, Iron, GM
		P	RPO LV1 – Engine Gas, 6 CYL, 4.3L, SIDI, V6, VVT, E85 MAX, Iron
		1	RPO LWN - Engine Diesel, 2.8L, DI, L4, DOHC, Turbo, XLDE
9	Check Digit	—	Check Digit
10	Model Year	K	2019
11	Plant Location	1	Wentzville
		N	Springfield
12–17	Plant Sequence Number	—	Plant Sequence Number

2.8L RPO LWN Engine ID and VIN Derivative Location

Engine Identification

4.3L RPO LV1 Engine ID and VIN Derivative Location

Engine Identification>

6.0L RPO L96, LC8 Engine ID and VIN Derivative Location

Engine Identification

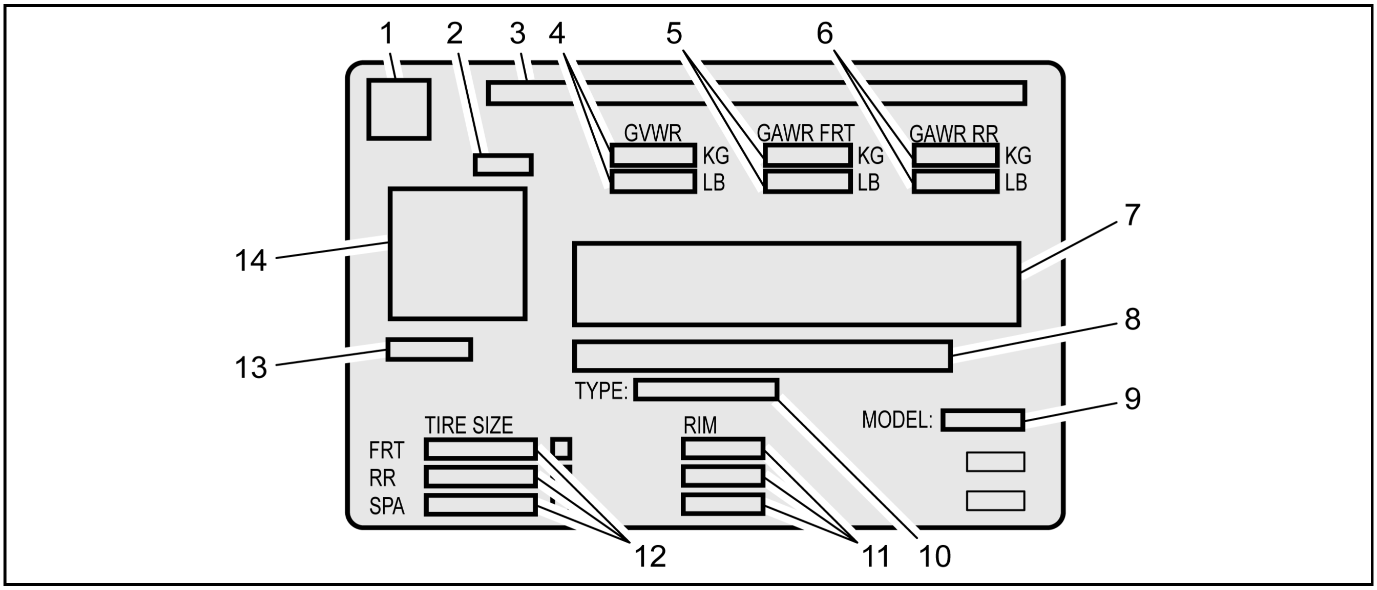
6L90 (MYD) Transmission ID and VIN Derivative Location

Transmission Identification Information

8L90 (M5U) Transmission ID and VIN Derivative Location

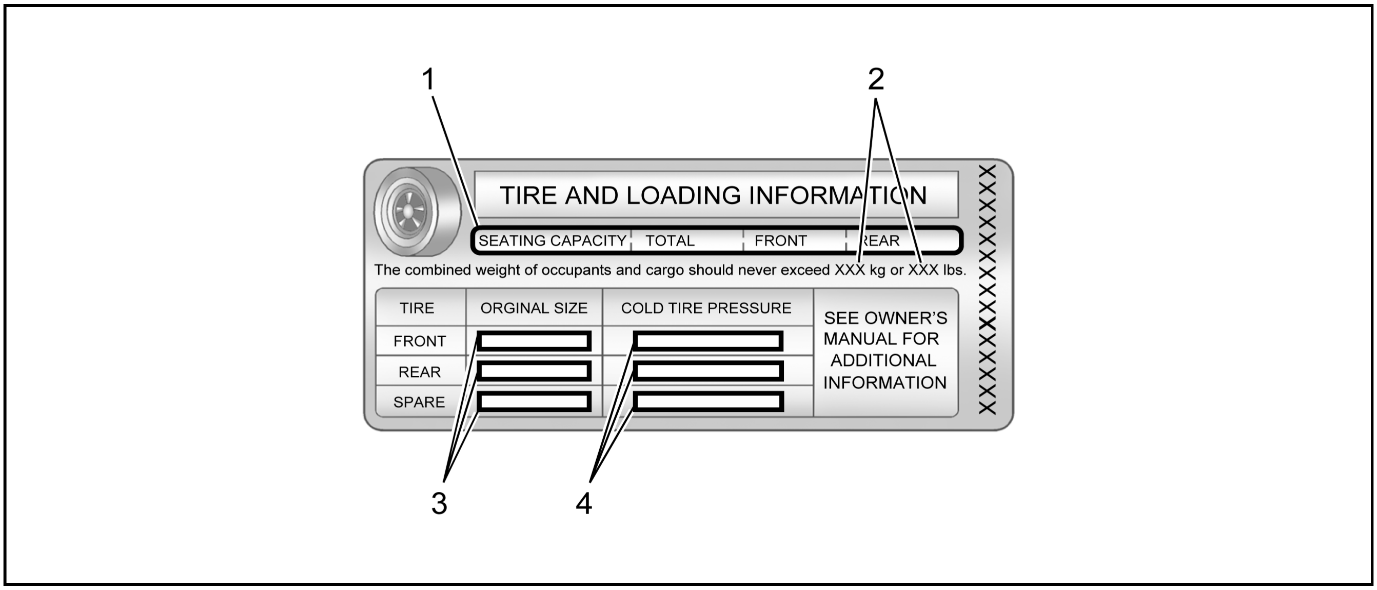
Transmission Identification Information

Vehicle Certification, Tire Placard, and Anti-Theft Label



Vehicle Certification Label

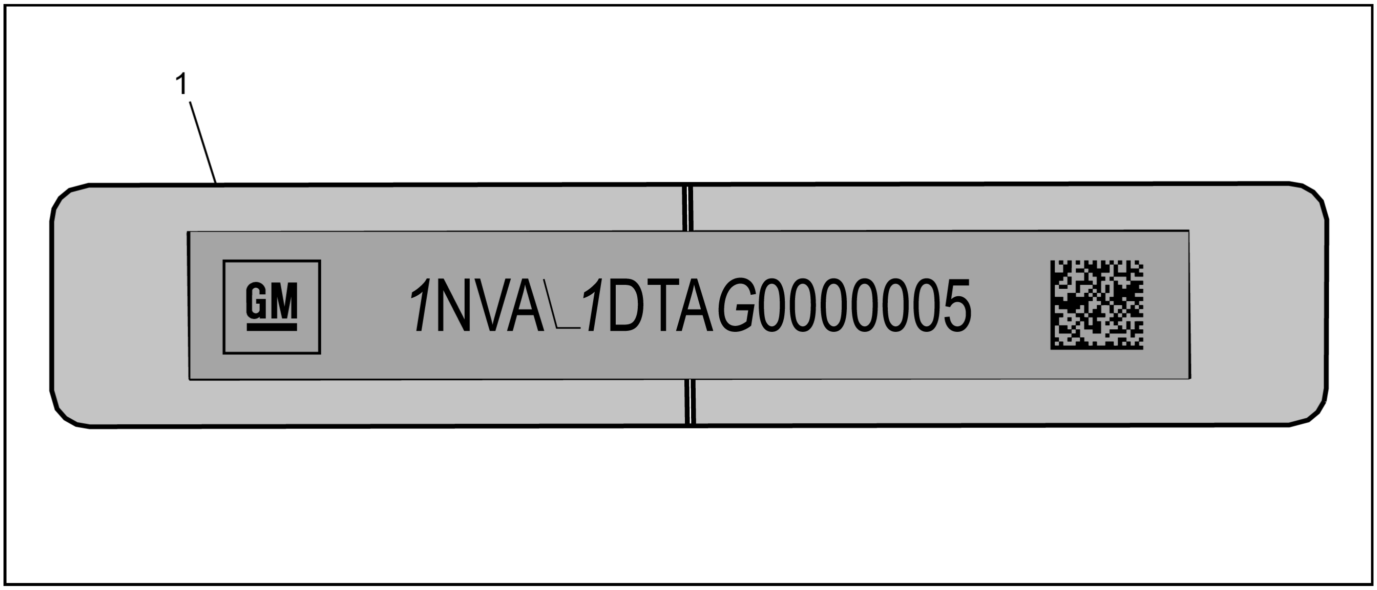
Callout	Description
A vehicle-specific Certification label is attached to the vehicle's center pillar (B-pillar) and displays the following assessments:	
1	Logo
2	Final Date of Manufacture (Month and Year MM/YY) Date of manufacture is to reflect the date that the vehicle is counted as built. In those cases where a replacement label is needed, the replacement label should reflect the actual build date not the date of replacement.
3	Name of Manufacturer
4	Maximum Gross Vehicle Weight Rating (GVWR)
5	Maximum Gross Axle Weight Rating (GAWR) - Front
6	Maximum Gross Axle Weight Rating (GAWR) - Rear
7	Certification Statement
8	Vehicle Identification Number (VIN)
9	Engineering Model Number
10	Vehicle Class Type (Pass Car, etc.)
11	Original Equipment Rim Size
12	Original Equipment Tire Size
13	Paint Code
14	QR Code Once the QR code is scanned, the information will appear in this order on your smartphone or laptop: VIN, Model Year, Model, Build Month, Year, Engineering Book, Vehicle Order Number, 3 Digit RPO Codes sorted alphanumerically and the Paint Code (same code appears the lower left of the QR code)


1
2
TIRE AND LOADING INFORMATION
SEATING CAPACITY
TOTAL
FRONT
REAR
The combined weight of occupants and cargo should never exceed XXX kg or XXX lbs.
TIRE
ORGINAL SIZE
COLD TIRE PRESSURE
FRONT
REAR
SPARE
SEE OWNER'S MANUAL FOR ADDITIONAL INFORMATION
XXXXXXXXXXXXX
3
4

4962282

Tire Placard

Callout	Description
A vehicle-specific Tire and Loading Information label is attached to the vehicle's center pillar (B-pillar) and displays the following assessments:	
1	Specified Occupant Seating Positions
2	Maximum Vehicle Capacity Weight
3	Original Equipment Tire Size
4	Tire Pressure, Front, Rear, and Spare (Cold)


1
GM
1NVA_1DTAG0000005

4962289

Anti-Theft Label

Callout	Description
This legal identifier is in the front corner of the instrument panel, on the driver side of the vehicle. It can be seen through the windshield from outside. The Vehicle Identification Number (VIN) also appears on the Vehicle Certification and certificates of title and registration.	
1	Vehicle Identification Number (VIN)

Section 2

Body Systems

Fixed and Moveable Windows 2-3
Schematic and Routing Diagrams 2-3
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Defogger Schematics 2-5
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Power Door Locks Description and Operation 2-37

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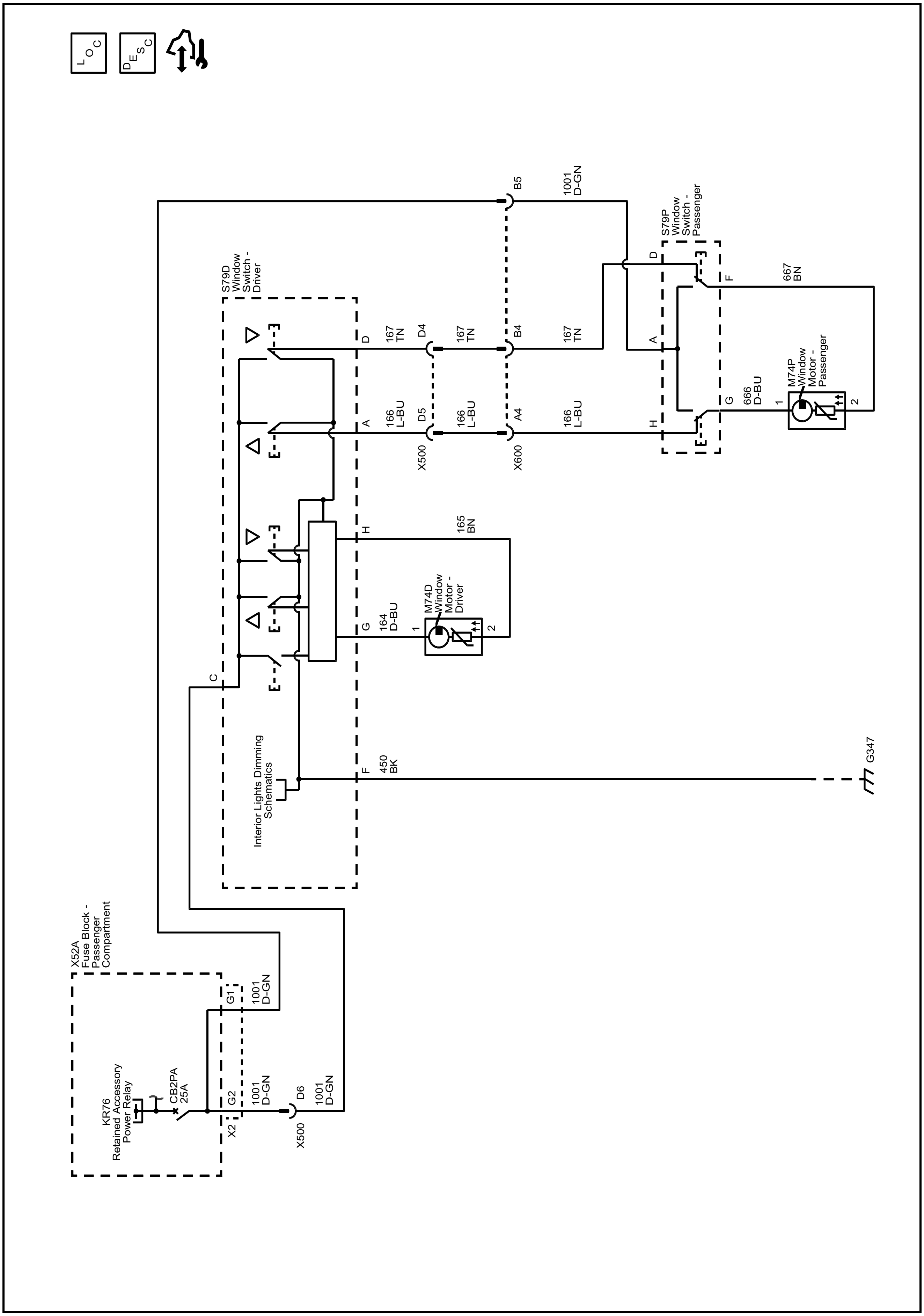
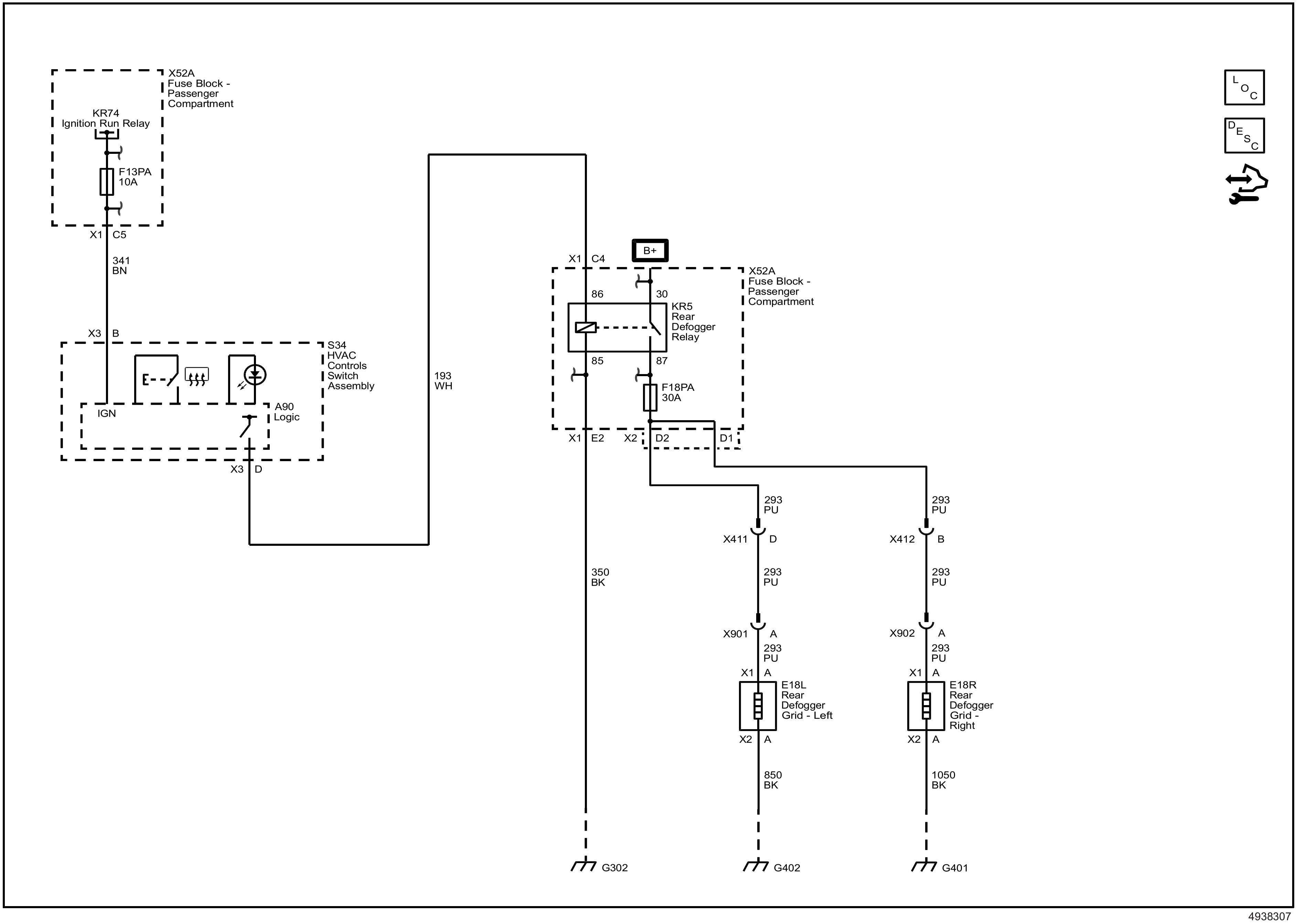
Fixed and Moveable Windows

Schematic and Routing Diagrams

Moveable Window Schematics (Moveable Windows (A31))


4938300
LOC
DESC
X52A
Fuse Block -
Passenger
Compartment
KR76
Retained Accessory
Power Relay
CB2PA
25A
G1
G2
X2
1001
D-GN
1001
D-GN
D6
1001
D-GN
X500
S79D
Window
Switch -
Driver
C
Interior Lights Dimming
Schematics
F
450
BK
G347
G
164
D-BU
1
M74D
Window
Motor -
Driver
2
H
165
BN
A
166
L-BU
D5
166
L-BU
A4
166
L-BU
H
D
167
TN
D4
167
TN
B4
167
TN
A
X500
X600
B5
1001
D-GN
S79P
Window
Switch -
Passenger
D
F
667
BN
G
666
D-BU
1
M74P
Window
Motor -
Passenger
2

Defogger Schematics (Defogger (C49))


LOC
DESC
X52A
Fuse Block - Passenger Compartment
KR74
Ignition Run Relay
F13PA
10A
X1 C5
341
BN
X3 B
S34
HVAC Controls Switch Assembly
IGN
A90
Logic
X3 D
193
WH
B+
X1 C4
86
30
KR5
Rear Defogger Relay
85
87
F18PA
30A
X52A
Fuse Block - Passenger Compartment
X1 E2
X2 D2
D1
350
BK
293
PU
X411 D
293
PU
X901 A
293
PU
X1 A
E18L
Rear Defogger Grid - Left
X2 A
850
BK
293
PU
X412 B
293
PU
X902 A
293
PU
X1 A
E18R
Rear Defogger Grid - Right
X2 A
1050
BK
G302
G402
G401
4938307

Description and Operation

Power Windows Description and Operation

Power Window System Components

The power window system consists of the following components:

- LF power window master switch
- RF power window switch
- Reversible power window motors in each of the doors (circuit breaker protected)
- PWR WNDW 25A circuit breaker

Power Window System Controls

The power window system will operate anytime the ignition switch is in the ACCY or ON position or when RAP is activated.

The LF power window master switch can control the up and down functions of both the windows in the vehicle. The passenger door power window switch can only control the up and down functions of the passenger window.

Power Window Motor Operation

A permanent magnet motor operates each of the power side windows. Each motor raises or lowers the glass when the motor receives voltage. The direction the motor turns depends on the polarity of the supply voltage. The power window switches control the polarity of the supply voltage. A built-in circuit breaker protects each motor. The circuit breaker opens when the switch is depressed for a extended period of time under the following conditions:

- The window has an obstruction.
- The window is fully open or fully closed.

The circuit breaker will reset automatically as the circuit breaker cools.

Power Window Operation

The normally closed contacts of the switch are connected to ground and the center pole is connected to the accessory voltage circuit. By placing the left power window switch in the down position, voltage is applied to the power window motor left front down circuit and to the power window motor. The other side of the power window motor is connected to ground through the normally closed contacts of the left power window switch through the power window motor left front up circuit and drives the window down.

By placing the power window switch in the up position the polarity of the motor is reversed and the motor drives the window up.

Rear Window Defogger Description and Operation

Rear Window Defogger System Components

The rear window defogger system consists of the following components:

- HVAC control assembly
- Rear window defogger relay
- Rear window defogger grid

Rear Window Defogger Operation

When you turn the ignition to the ON position, battery positive voltage is supplied through the HTD MIR DEFOG fuse to the rear window defogger relay switched input. Ground is for the rear window defogger relay coil is provided by G302. Battery positive voltage and ignition voltage is supplied to the HVAC control assembly for rear window defogger operation. When the rear window defogger switch is depressed, the HVAC control assembly energizes the rear window defogger relay by supplying battery positive voltage to the rear window defogger relay coil. This allows battery positive voltage from the relay switched input through the switch contacts and out the relay switched output to the rear window defogger grids. The HVAC control assembly also illuminates the rear window defogger indicator upon this request. Ground for the left rear window defogger grid is provided by G401. Ground for the right rear window defogger grid is provided by G402.

When you turn ON the ignition and press the rear window defogger switch for the first time, the defogger cycle lasts 10 minutes. Further operation results in 5 minute defogger cycles. The defogger cycle resets to 10 minutes when you cycle the ignition to the OFF position and then back to the ON position.

Horns and Pedestrian Alerts

Description and Operation

Horns System Description and Operation

System Description

The horn system consists of the following components:

- The HORN fuse
- The Horn relay
- The Horn Contact
- The Horn Assembly
- Body Control Module (BCM)

System Operation

- The vehicle horns are activated whenever the horn switch is depressed.
- The BCM commands the horns ON under any of the following conditions:
  - When the panic button is depressed on the remote control door lock transmitter. For further information refer to *Keyless Entry System Description and Operation on page 7-15*.
  - When the keyless entry system is used to lock the vehicle, a horn chirp may sound to notify the driver that the vehicle has been locked. The notification feature may be enabled or disabled through personalization. For further information refer to *Keyless Entry System Description and Operation on page 7-15*.

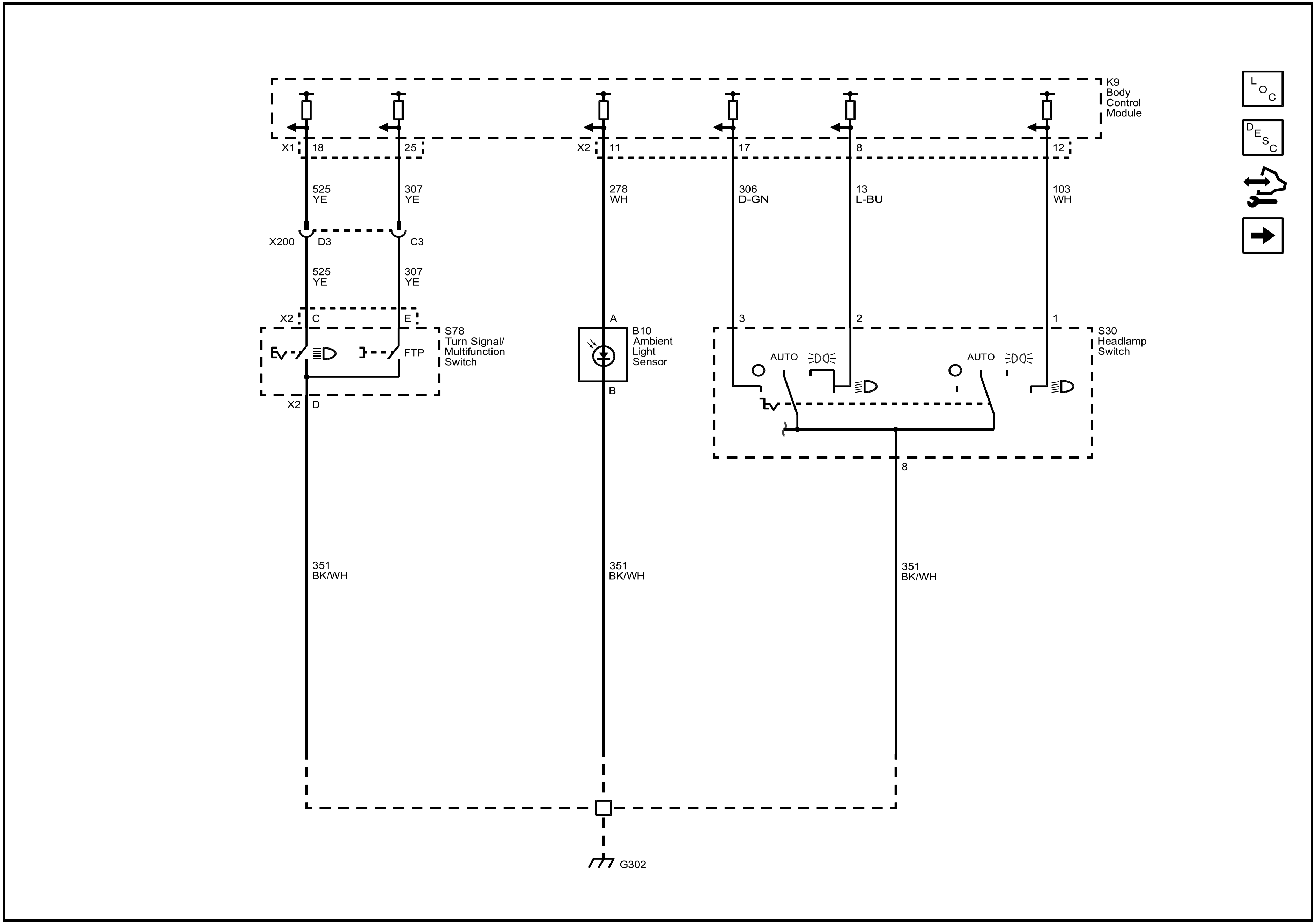
Circuit Operation

Battery positive voltage is applied at all times to the horn relay coil and the horn relay switch. Pressing the horn switch applies ground to the horn relay control circuit. When the horn relay control circuit is grounded, the horn relay is energized and battery positive voltage is applied to the horns through the horn control circuit. The horns sound as long as ground is applied to the horn relay control circuit.

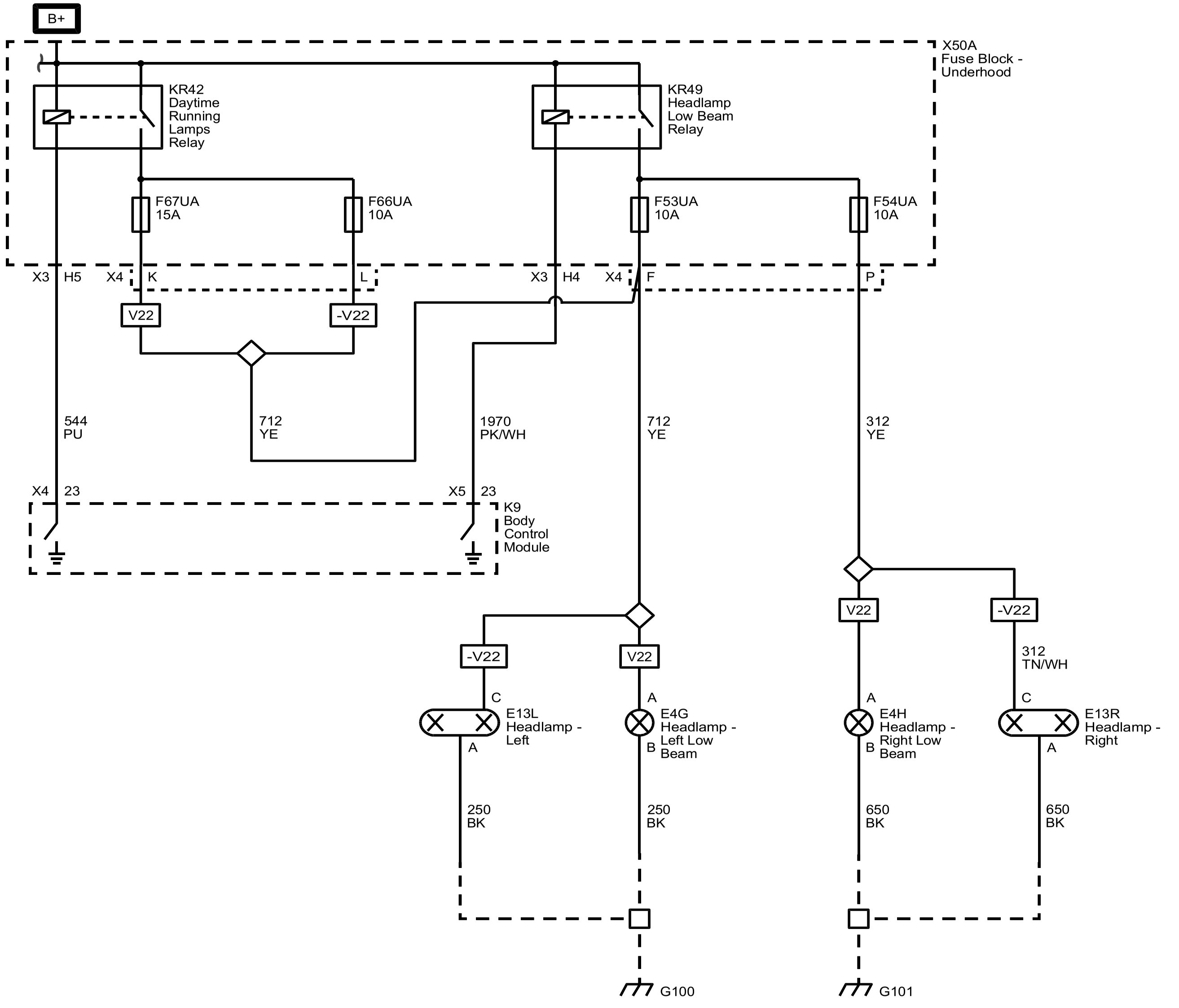
Lighting

Schematic and Routing Diagrams

Headlights/Daytime Running Lights (DRL) Schematics (Headlamp and Daytime Running Lamp Controls)

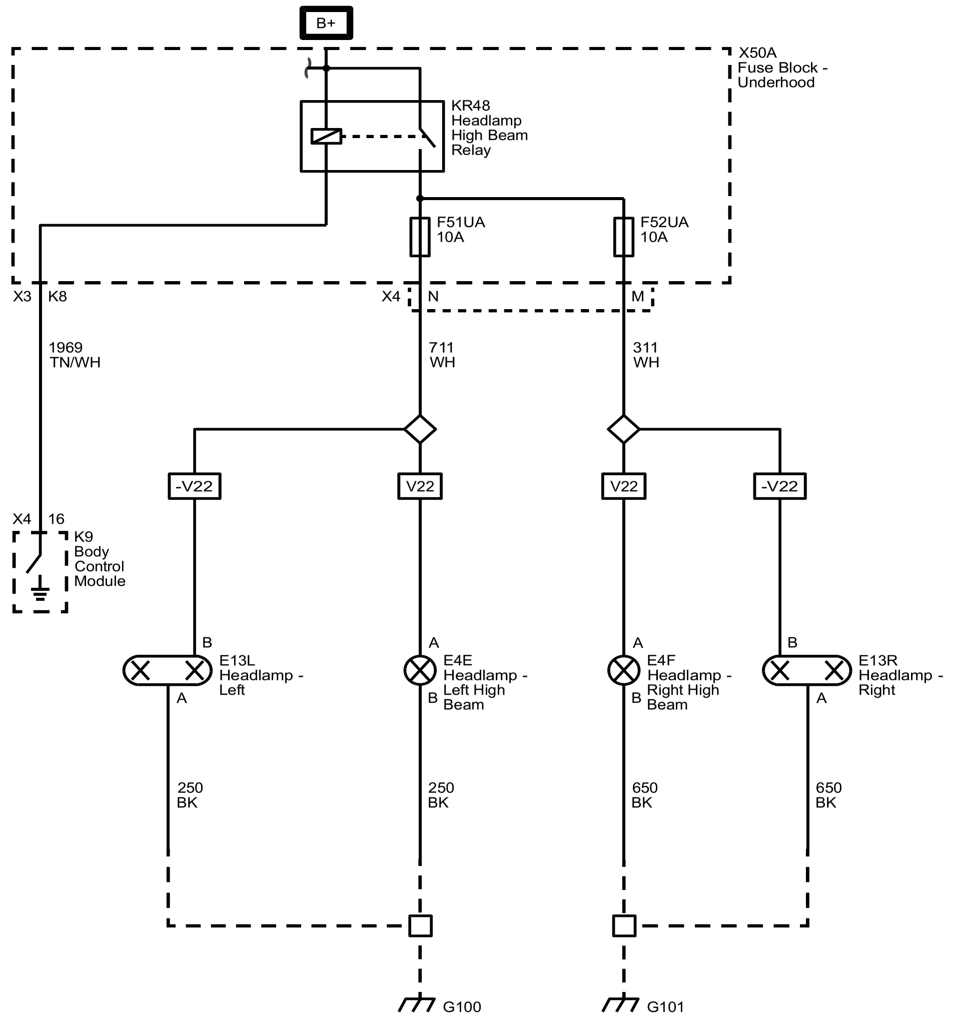

L O C
D E S C
K9
Body
Control
Module
X1 18
25
X2 11
17
8
12
525
YE
307
YE
278
WH
306
D-GN
13
L-BU
103
WH
X200 D3
C3
525
YE
307
YE
X2 C
E
FTP
S78
Turn Signal/
Multifunction
Switch
X2 D
A
B10
Ambient
Light
Sensor
B
3
2
1
S30
Headlamp
Switch
AUTO
AUTO
8
351
BK/WH
351
BK/WH
351
BK/WH
G302
4938332

Headlights/Daytime Running Lights (DRL) Schematics (Low Beam and Daytime Running Lights (DRL))


B+
X50A
Fuse Block -
Underhood
KR42
Daytime
Running
Lamps
Relay
KR49
Headlamp
Low Beam
Relay
F67UA
15A
F66UA
10A
F53UA
10A
F54UA
10A
X3 H5
X4 K
L
X3 H4
X4 F
P
V22
-V22
544
PU
712
YE
1970
PK/WH
712
YE
312
YE
X4 23
X5 23
K9
Body
Control
Module
V22
-V22
312
TN/WH
C
A
B
E13L
Headlamp -
Left
E4G
Headlamp -
Left Low
Beam
E4H
Headlamp -
Right Low
Beam
E13R
Headlamp -
Right
250
BK
650
BK
G100
G101

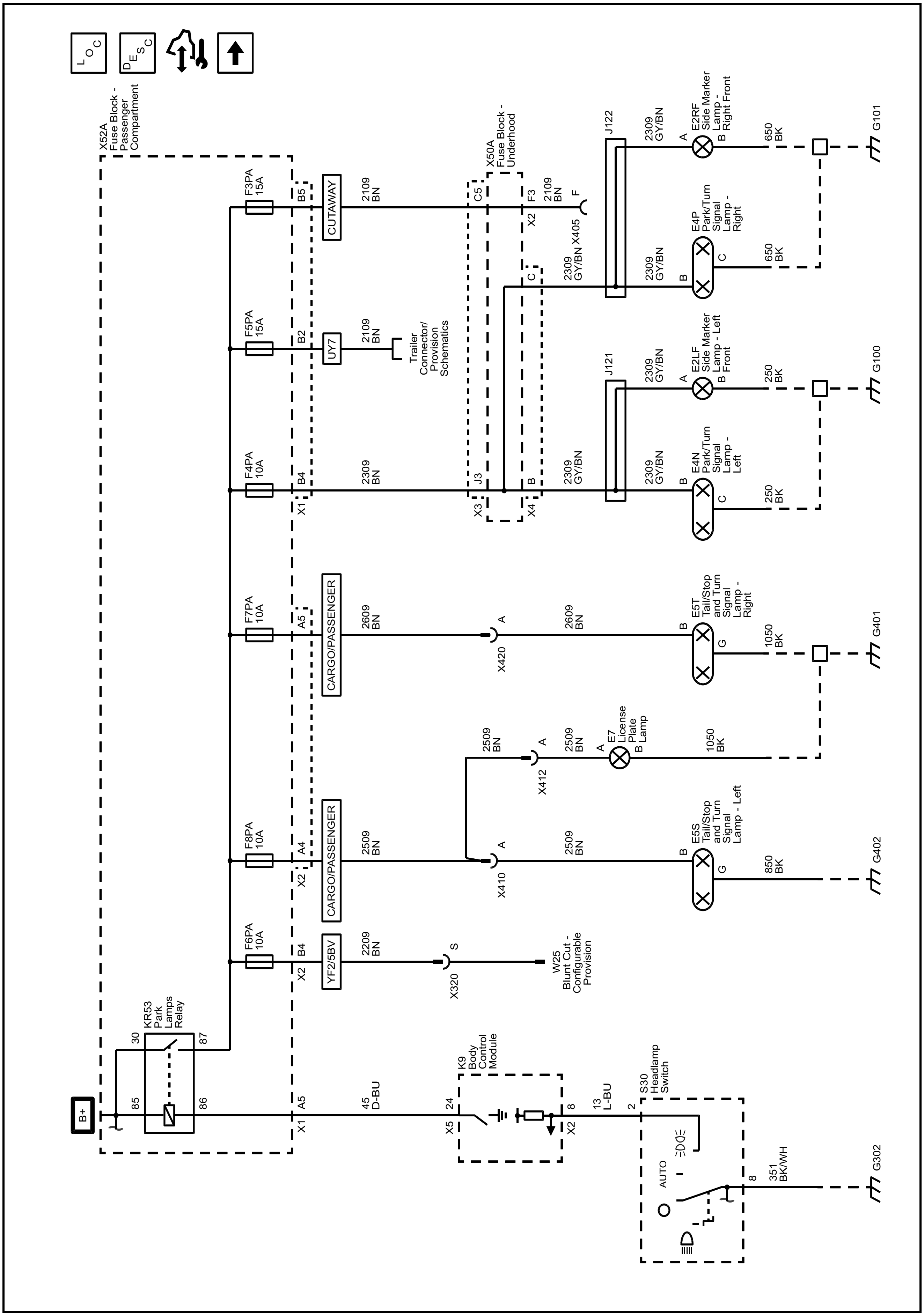
4938485

Headlights/Daytime Running Lights (DRL) Schematics (High Beams)


B+
X50A
Fuse Block -
Underhood
KR48
Headlamp
High Beam
Relay
F51UA
10A
F52UA
10A
X3 K8
X4 N
M
1969
TN/WH
711
WH
311
WH
-V22
V22
V22
-V22
X4 16
K9
Body
Control
Module
B
E13L
Headlamp -
Left
A
A
E4E
Headlamp -
Left High
Beam
B
A
E4F
Headlamp -
Right High
Beam
B
B
E13R
Headlamp -
Right
A
250
BK
250
BK
650
BK
650
BK
G100
G101

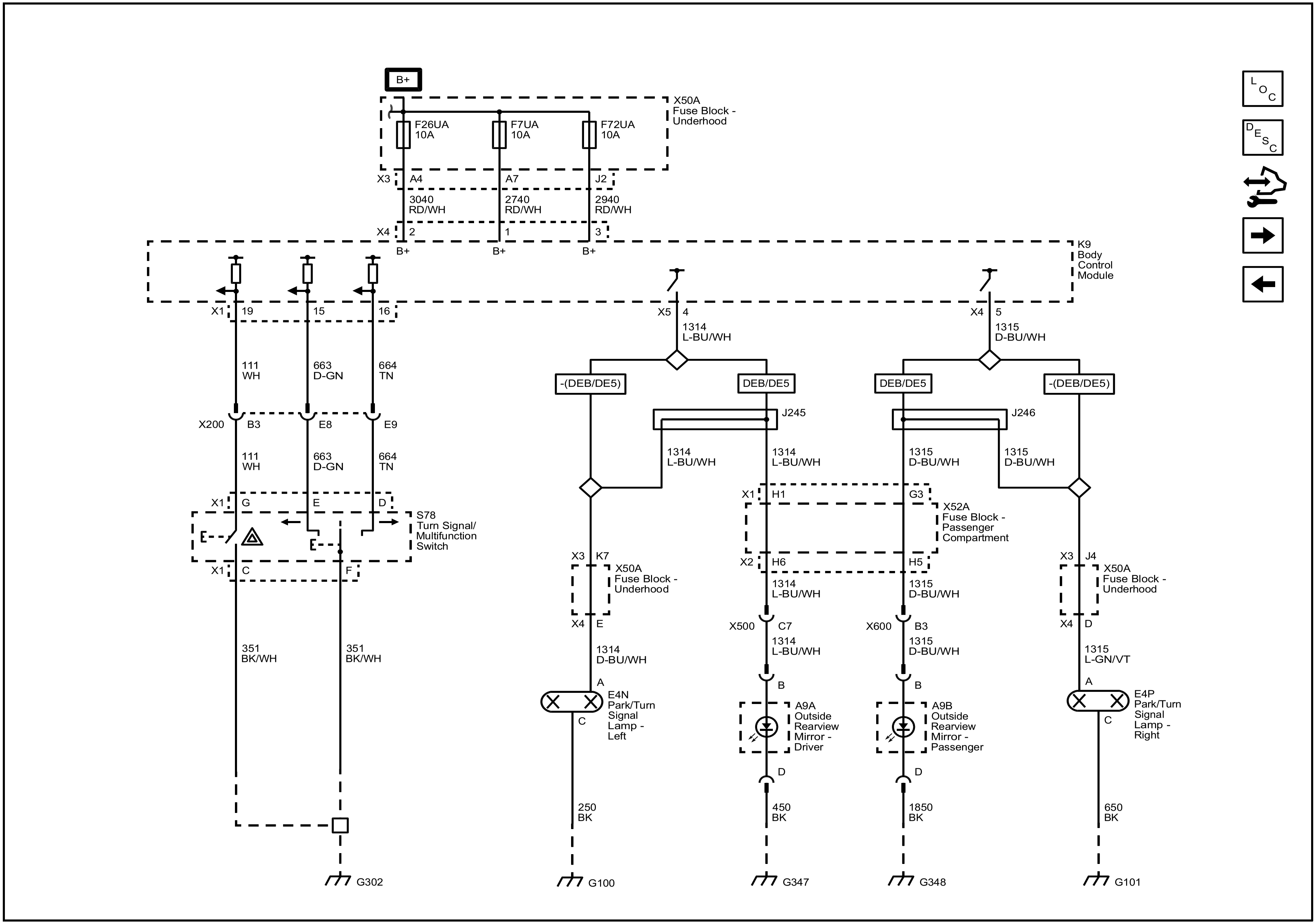
4938492

Exterior Lights Schematics (Park Lamp Controls and Park Lamps)

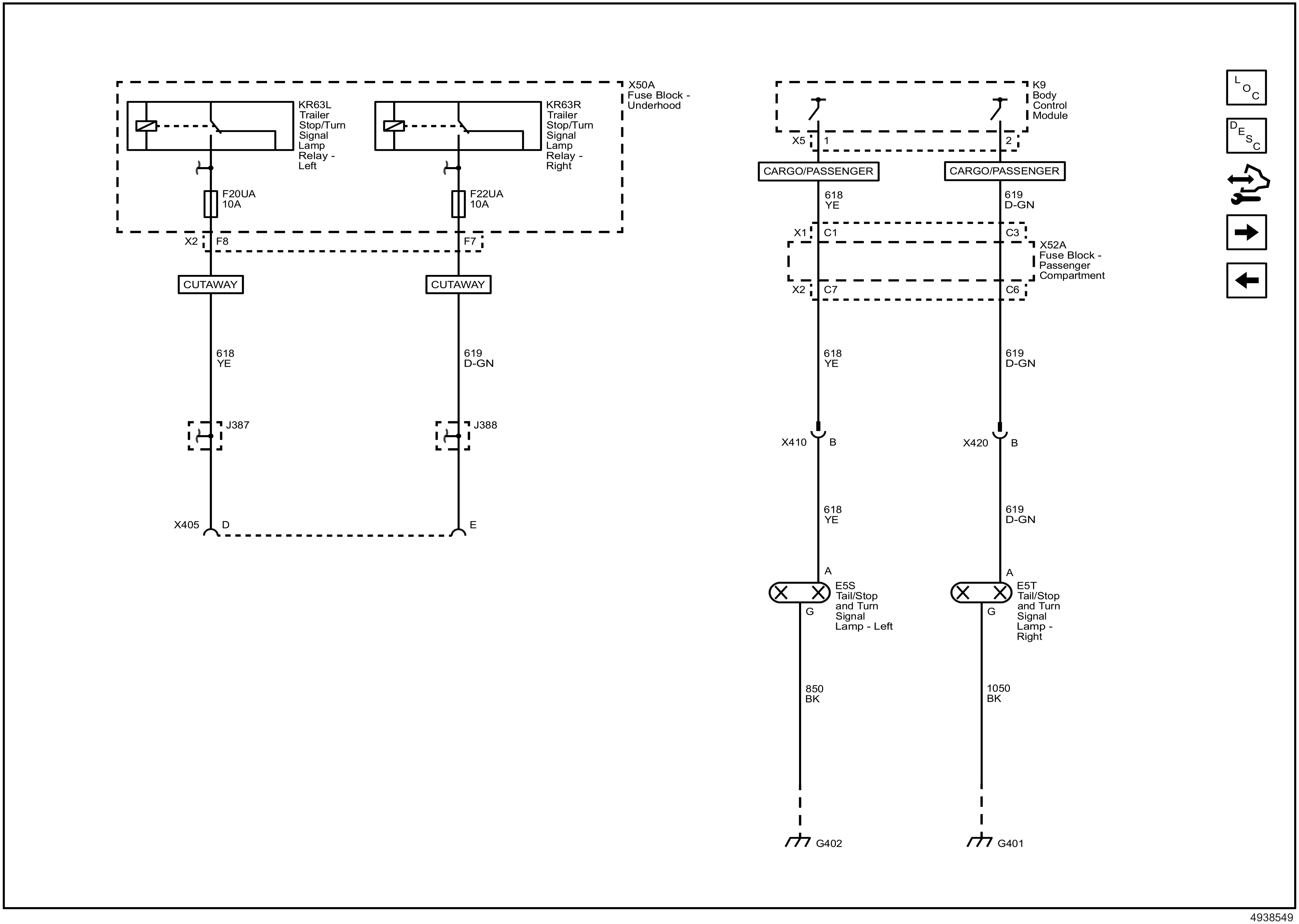

X52A Fuse Block - Passenger Compartment
B+
KR53 Park Lamps Relay
30
87
85
86
F3PA 15A
F5PA 15A
F4PA 10A
F7PA 10A
F8PA 10A
F6PA 10A
B5
B2
B4
A5
A4
X1
X2
CUTAWAY
UY7
CARGO/PASSENGER
YF2/5BV
2109 BN
2309 BN
2609 BN
2509 BN
2209 BN
45 D-BU
Trailer Connector/ Provision Schematics
X50A Fuse Block - Underhood
C5
J3
X3
F3
C
B
X2
X4
F
X405
2309 GY/BN
J122
J121
E2RF Side Marker Lamp - Right Front
E4P Park/Turn Signal Lamp - Right
E2LF Side Marker Lamp - Left Front
E4N Park/Turn Signal Lamp - Left
E5T Tail/Stop and Turn Signal Lamp - Right
E7 License Plate Lamp
E5S Tail/Stop and Turn Signal Lamp - Left
A
B
C
G
650 BK
250 BK
1050 BK
850 BK
G101
G100
G401
G402
X420
X412
X410
X320
S
W25 Blunt Cut - Configurable Provision
K9 Body Control Module
24
X5
8
13 L-BU
S30 Headlamp Switch
2
AUTO
351 BK/WH
G302

4938498

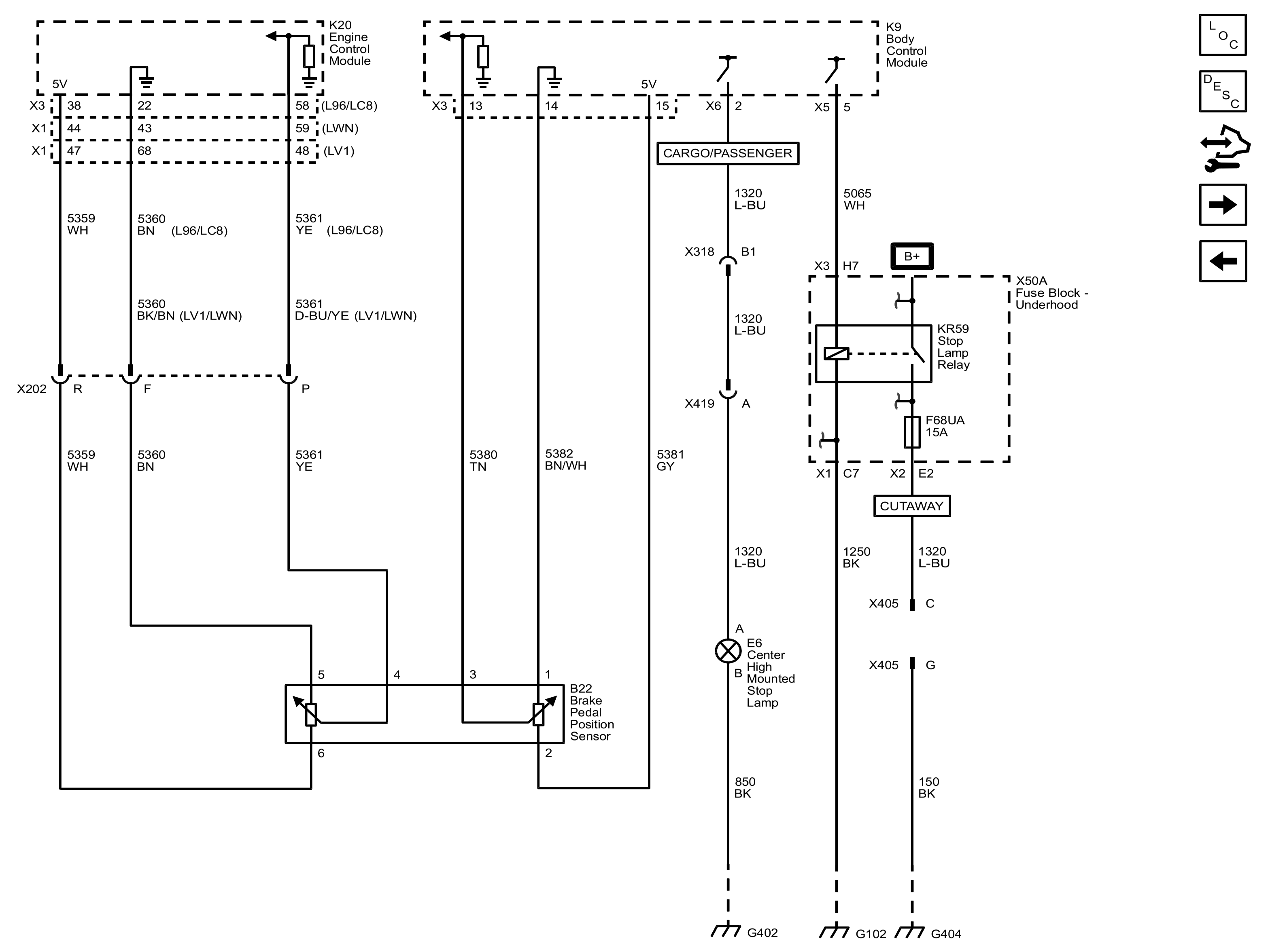
Exterior Lights Schematics (Turn Signal Controls and Front Turn Signal Lamps)


B+
X50A
Fuse Block -
Underhood
F26UA
10A
F7UA
10A
F72UA
10A
X3
A4
A7
J2
3040
RD/WH
2740
RD/WH
2940
RD/WH
X4
2
1
3
B+
B+
B+
K9
Body
Control
Module
X1
19
15
16
111
WH
663
D-GN
664
TN
X200
B3
E8
E9
111
WH
663
D-GN
664
TN
X1
G
E
D
S78
Turn Signal/
Multifunction
Switch
X1
C
F
351
BK/WH
351
BK/WH
G302
X5
4
1314
L-BU/WH
X4
5
1315
D-BU/WH
-(DEB/DE5)
DEB/DE5
DEB/DE5
-(DEB/DE5)
J245
J246
1314
L-BU/WH
1314
L-BU/WH
1315
D-BU/WH
1315
D-BU/WH
X1
H1
G3
X52A
Fuse Block -
Passenger
Compartment
X2
H6
H5
X3
K7
X50A
Fuse Block -
Underhood
X4
E
1314
D-BU/WH
A
E4N
Park/Turn
Signal
Lamp -
Left
C
250
BK
G100
1314
L-BU/WH
X500
C7
1314
L-BU/WH
B
A9A
Outside
Rearview
Mirror -
Driver
D
450
BK
G347
1315
D-BU/WH
X600
B3
1315
D-BU/WH
B
A9B
Outside
Rearview
Mirror -
Passenger
D
1850
BK
G348
X3
J4
X50A
Fuse Block -
Underhood
X4
D
1315
L-GN/VT
A
E4P
Park/Turn
Signal
Lamp -
Right
C
650
BK
G101
LOC
DESC
4938537

Exterior Lights Schematics (Rear Turn Signal Lamps)

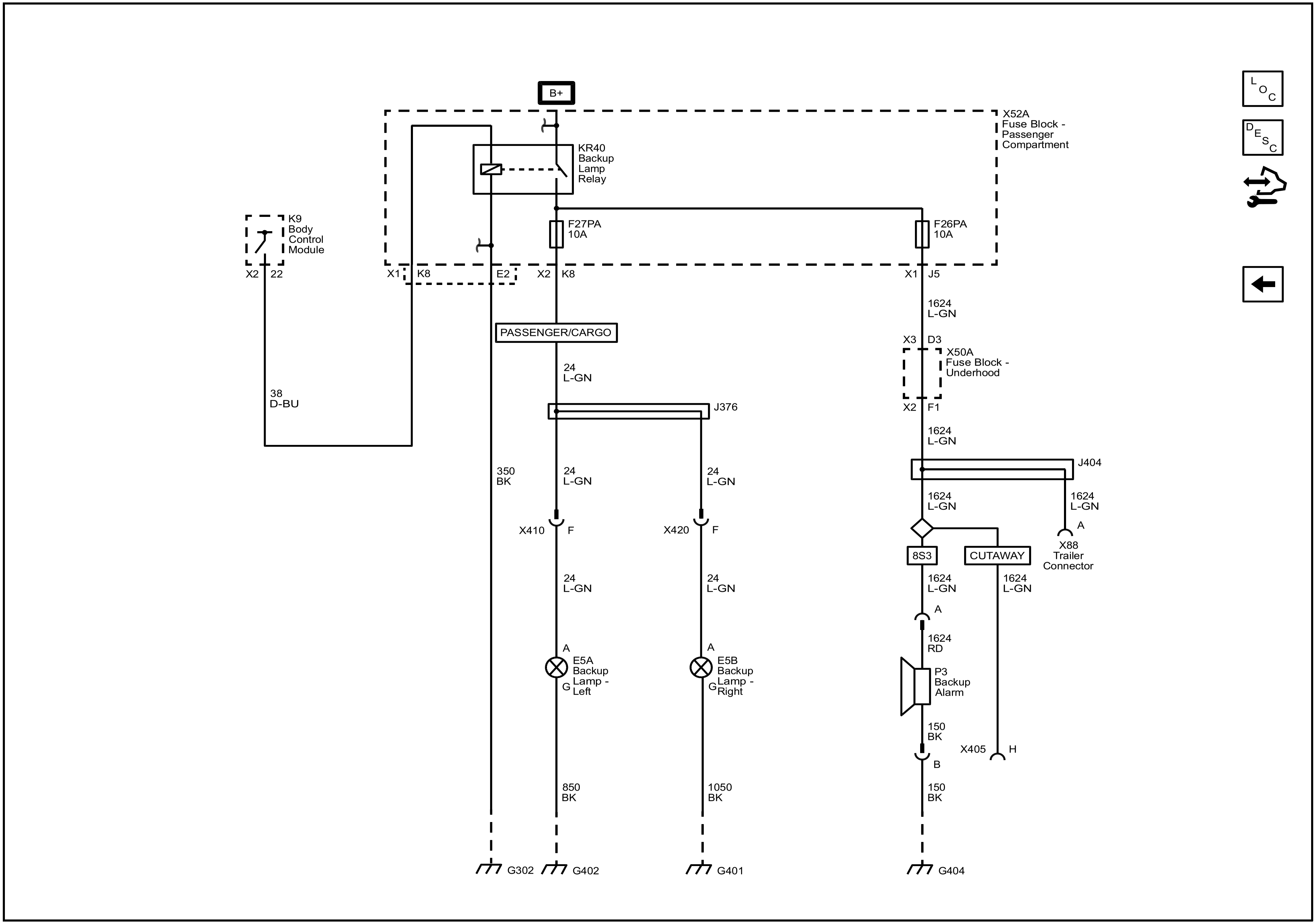

X50A
Fuse Block - Underhood
KR63L
Trailer Stop/Turn Signal Lamp Relay - Left
KR63R
Trailer Stop/Turn Signal Lamp Relay - Right
F20UA
10A
F22UA
10A
X2
F8
F7
CUTAWAY
CUTAWAY
618
YE
619
D-GN
J387
J388
X405
D
E
K9
Body Control Module
X5
1
2
CARGO/PASSENGER
CARGO/PASSENGER
618
YE
619
D-GN
X1
C1
C3
X52A
Fuse Block - Passenger Compartment
X2
C7
C6
618
YE
619
D-GN
X410
B
X420
B
618
YE
619
D-GN
A
E5S
Tail/Stop and Turn Signal Lamp - Left
A
E5T
Tail/Stop and Turn Signal Lamp - Right
G
G
850
BK
1050
BK
G402
G401
L O C
D E S C
4938549

Exterior Lights Schematics (Stop Lamp Controls and CHMSL)


K20
Engine
Control
Module
5V
X3 38 22 58 (L96/LC8)
X1 44 43 59 (LWN)
X1 47 68 48 (LV1)
5359
WH
5360
BN (L96/LC8)
5361
YE (L96/LC8)
5360
BK/BN (LV1/LWN)
5361
D-BU/YE (LV1/LWN)
X202 R F P
5359
WH
5360
BN
5361
YE
K9
Body
Control
Module
5V
X3 13 14 15
X6 2
X5 5
CARGO/PASSENGER
1320
L-BU
5065
WH
X318 B1
X3 H7
B+
X50A
Fuse Block -
Underhood
KR59
Stop
Lamp
Relay
X419 A
F68UA
15A
X1 C7
X2 E2
CUTAWAY
5380
TN
5382
BN/WH
5381
GY
1320
L-BU
1250
BK
1320
L-BU
X405 C
X405 G
A
E6
Center
High
Mounted
Stop
Lamp
B
5 4 3 1
B22
Brake
Pedal
Position
Sensor
6 2
850
BK
150
BK
G402
G102
G404

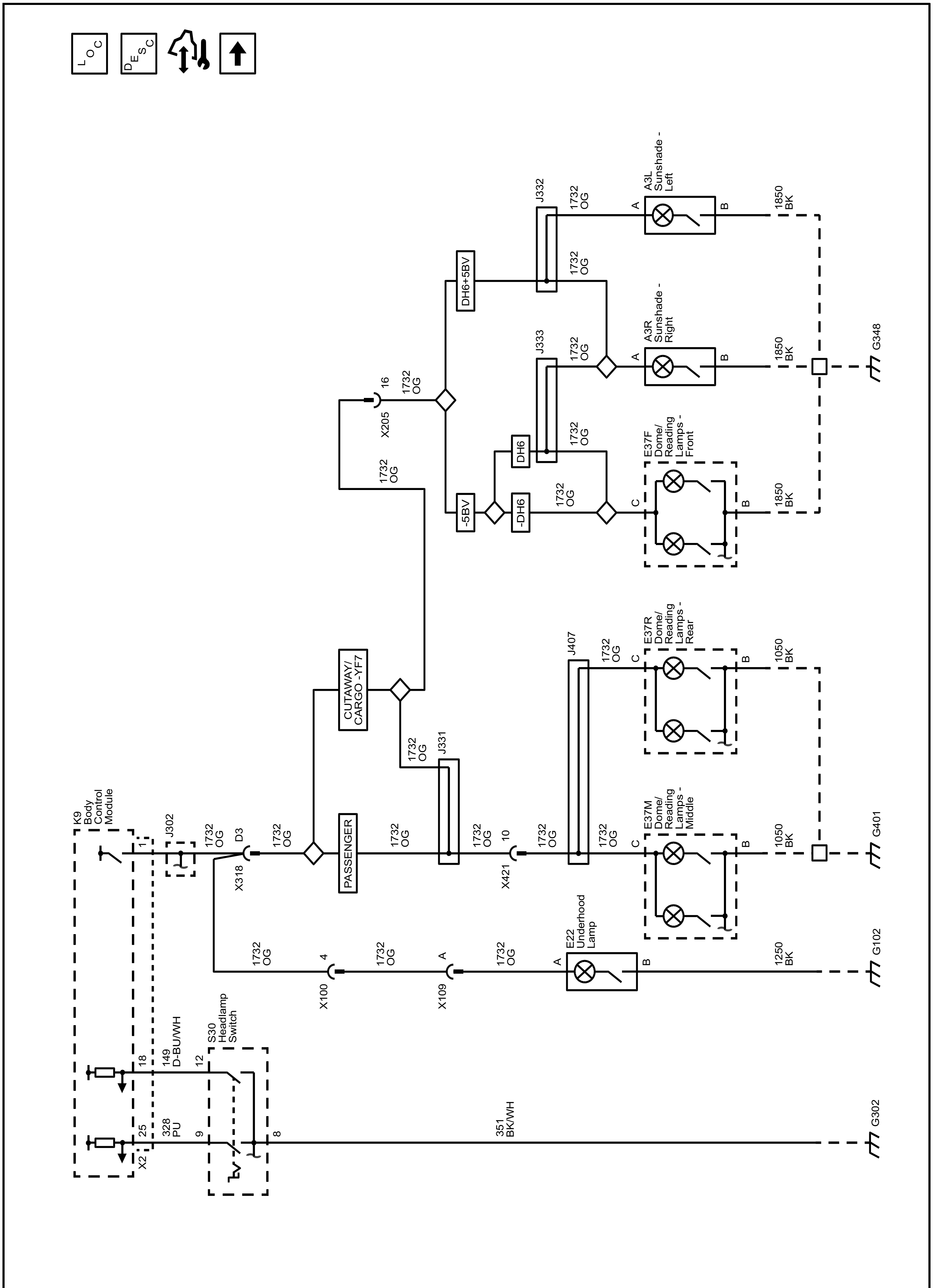
4938555

Exterior Lights Schematics (Backup Lamps and Backup Alarm)

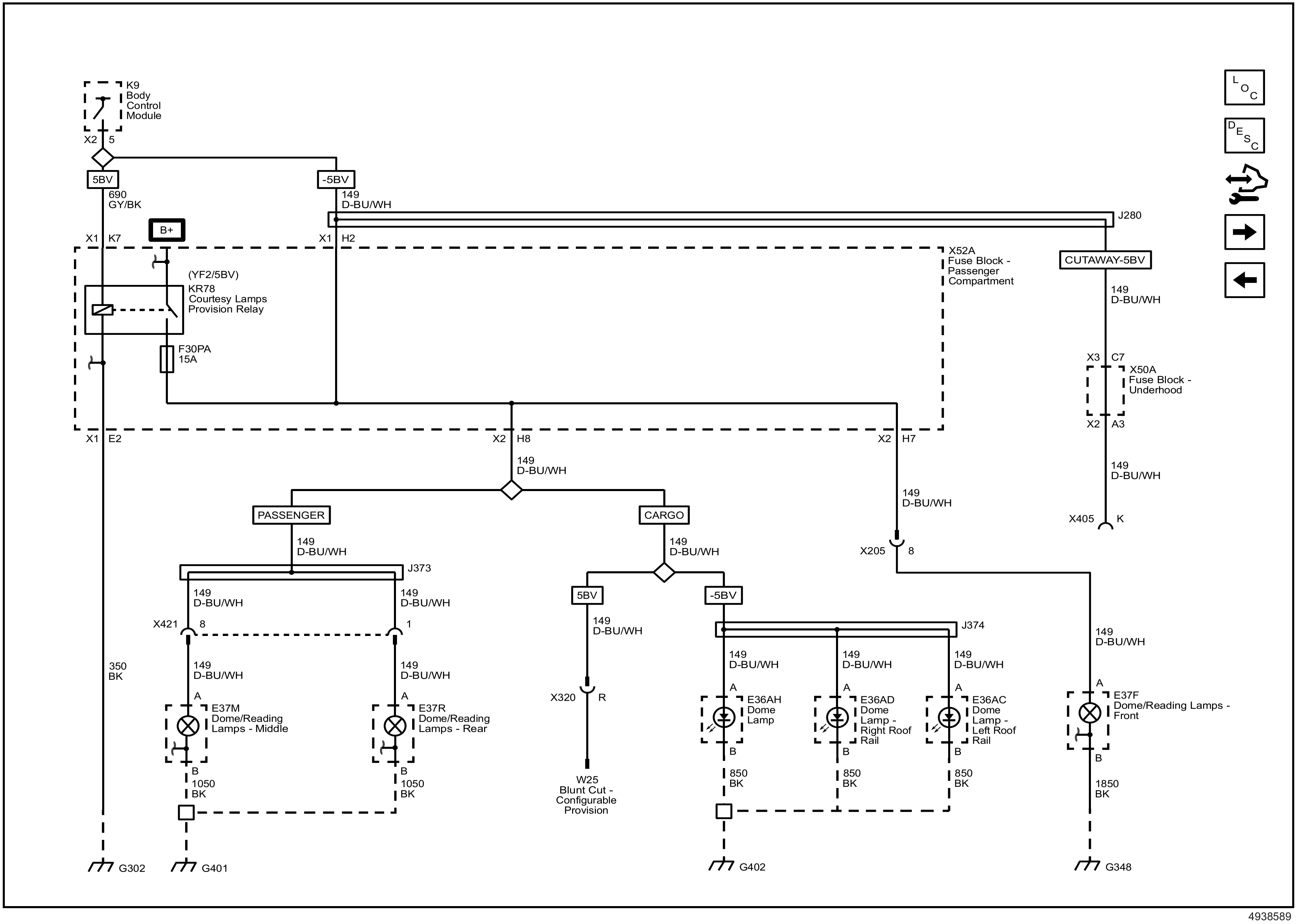

B+
X52A
Fuse Block -
Passenger
Compartment
KR40
Backup
Lamp
Relay
K9
Body
Control
Module
F27PA
10A
F26PA
10A
X2 22
X1 K8
E2
X2 K8
X1 J5
38
D-BU
PASSENGER/CARGO
24
L-GN
J376
1624
L-GN
X3 D3
X50A
Fuse Block -
Underhood
X2 F1
1624
L-GN
J404
350
BK
24
L-GN
24
L-GN
1624
L-GN
1624
L-GN
X410 F
X420 F
A
X88
Trailer
Connector
8S3
CUTAWAY
24
L-GN
24
L-GN
1624
L-GN
1624
L-GN
A
A
E5A
Backup
Lamp -
Left
G
A
E5B
Backup
Lamp -
Right
G
1624
RD
P3
Backup
Alarm
150
BK
X405 H
B
850
BK
1050
BK
150
BK
G302
G402
G401
G404

4938578

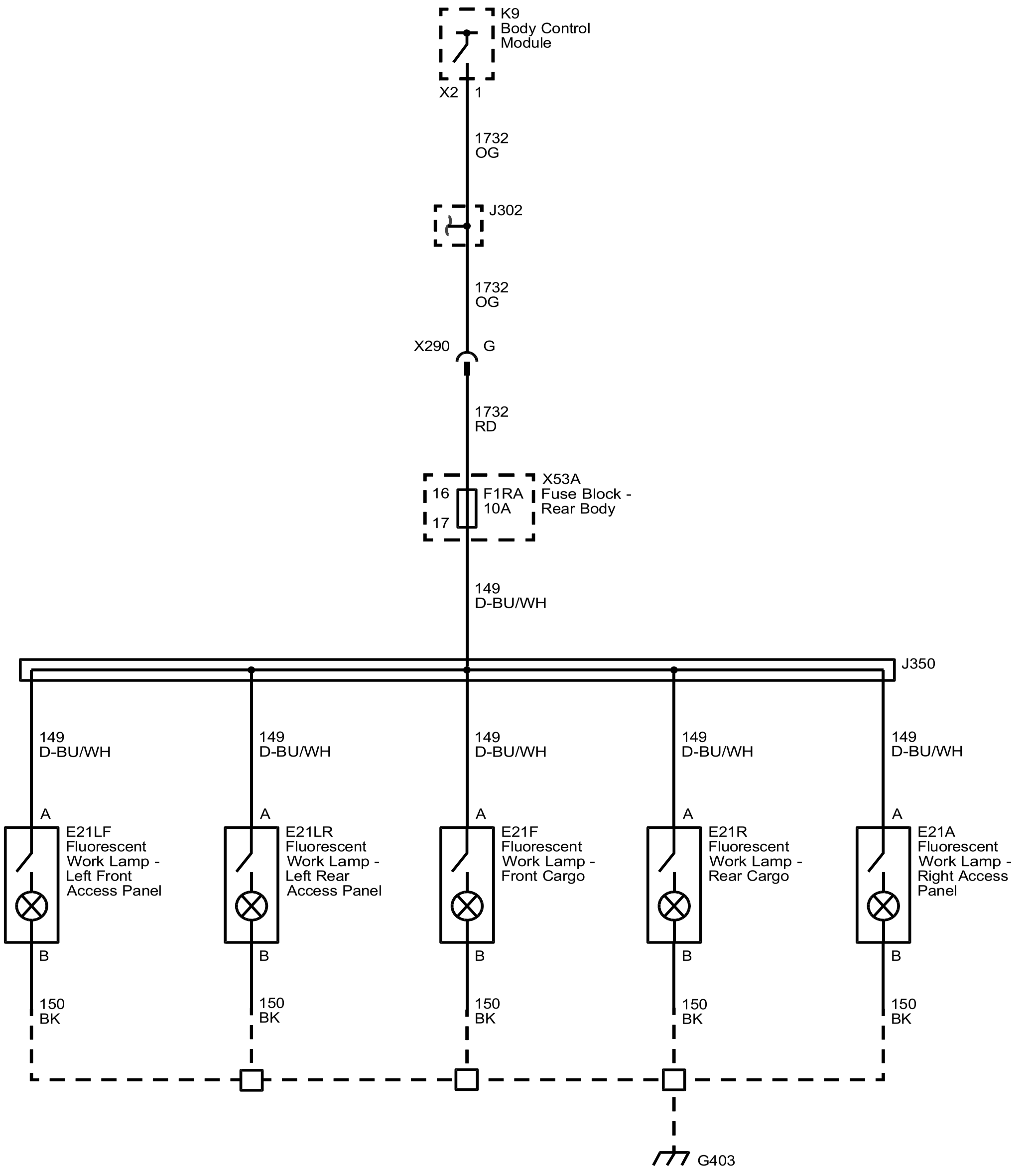
Interior Lights Schematics (Inadvertent Lamp Control)


LOC
DESC
4938585
K9 Body Control Module
X2
25
18
1
328 PU
149 D-BU/WH
S30 Headlamp Switch
9
12
8
351 BK/WH
G302
J302
1732 OG
D3
X318
PASSENGER
CUTAWAY/ CARGO -YF7
J331
10
X421
J407
X100
4
X109
A
E22 Underhood Lamp
B
1250 BK
G102
E37M Dome/ Reading Lamps - Middle
C
1050 BK
G401
E37R Dome/ Reading Lamps - Rear
X205
16
-5BV
DH6
-DH6
DH6+5BV
J333
J332
E37F Dome/ Reading Lamps - Front
1850 BK
A3R Sunshade - Right
A3L Sunshade - Left
G348

Interior Lights Schematics (Courtesy Lamp Control)

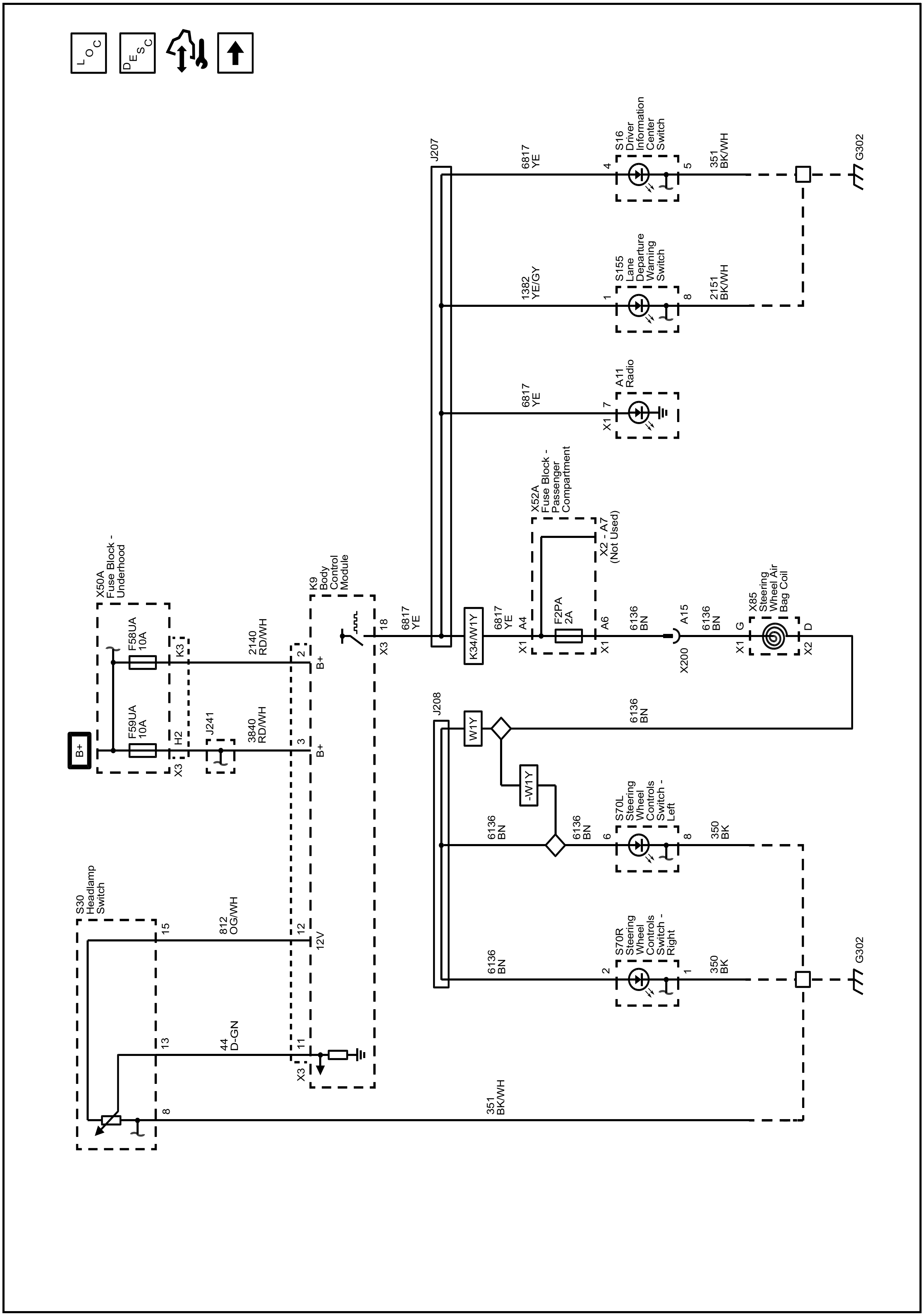

K9
Body
Control
Module
X2 5
5BV
-5BV
690
GY/BK
149
D-BU/WH
J280
B+
X1 K7
X1 H2
X52A
Fuse Block -
Passenger
Compartment
CUTAWAY-5BV
(YF2/5BV)
KR78
Courtesy Lamps
Provision Relay
F30PA
15A
X3 C7
X50A
Fuse Block -
Underhood
X2 A3
X1 E2
X2 H8
X2 H7
X405 K
PASSENGER
CARGO
X205 8
J373
5BV
-5BV
X421 8
1
J374
350
BK
X320 R
E37M
Dome/Reading
Lamps - Middle
E37R
Dome/Reading
Lamps - Rear
E36AH
Dome
Lamp
E36AD
Dome
Lamp -
Right Roof
Rail
E36AC
Dome
Lamp -
Left Roof
Rail
E37F
Dome/Reading Lamps -
Front
A
B
1050
BK
W25
Blunt Cut -
Configurable
Provision
850
BK
1850
BK
G302
G401
G402
G348
4938589

Interior Lights Schematics (Side Access Panel and Cargo Work Lamps (PRP with UF2))

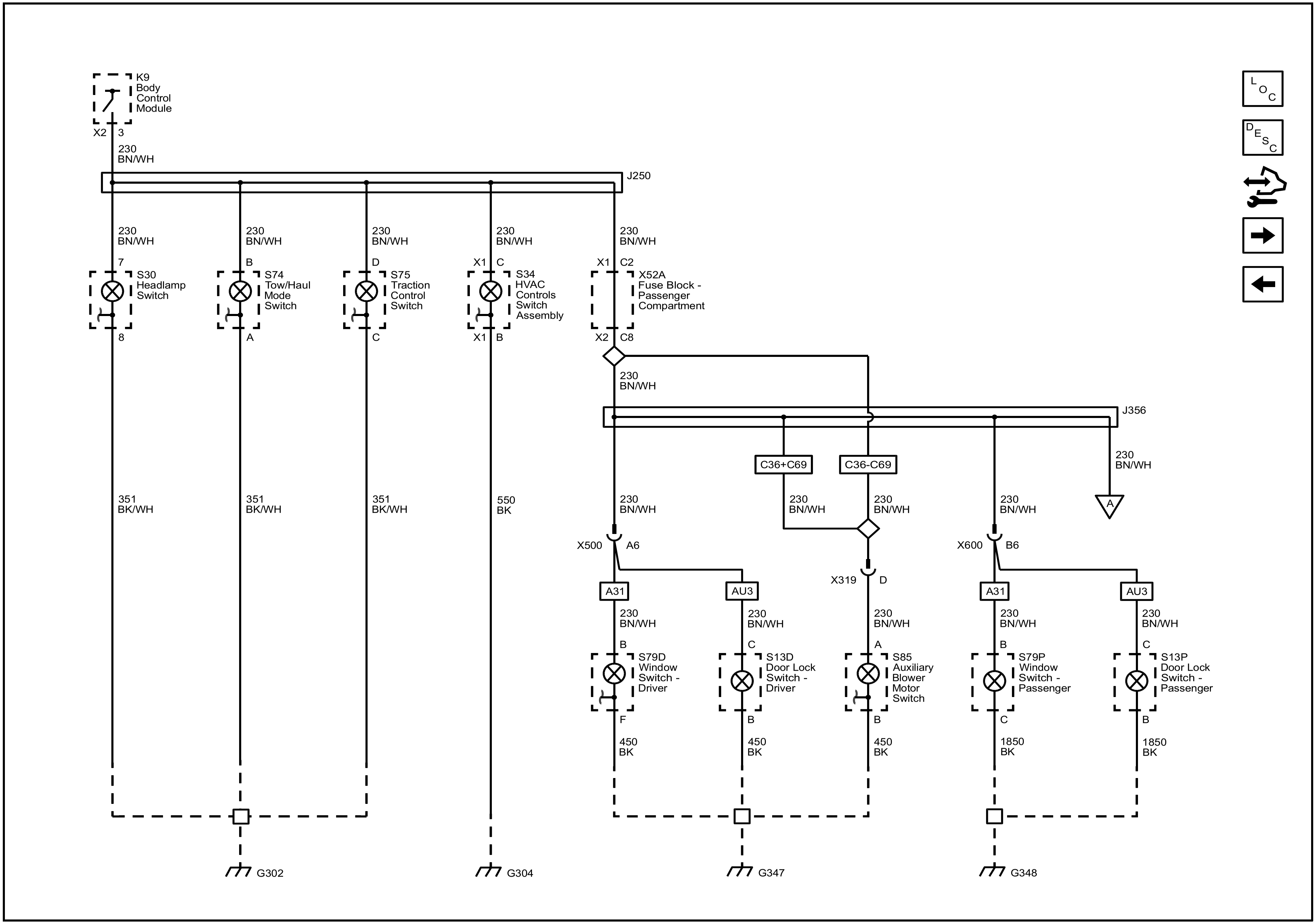

K9
Body Control
Module
X2
1
1732
OG
J302
1732
OG
X290
G
1732
RD
X53A
Fuse Block -
Rear Body
16
17
F1RA
10A
149
D-BU/WH
J350
149
D-BU/WH
149
D-BU/WH
149
D-BU/WH
149
D-BU/WH
149
D-BU/WH
A
E21LF
Fluorescent
Work Lamp -
Left Front
Access Panel
B
A
E21LR
Fluorescent
Work Lamp -
Left Rear
Access Panel
B
A
E21F
Fluorescent
Work Lamp -
Front Cargo
B
A
E21R
Fluorescent
Work Lamp -
Rear Cargo
B
A
E21A
Fluorescent
Work Lamp -
Right Access
Panel
B
150
BK
150
BK
150
BK
150
BK
150
BK
G403

4938602

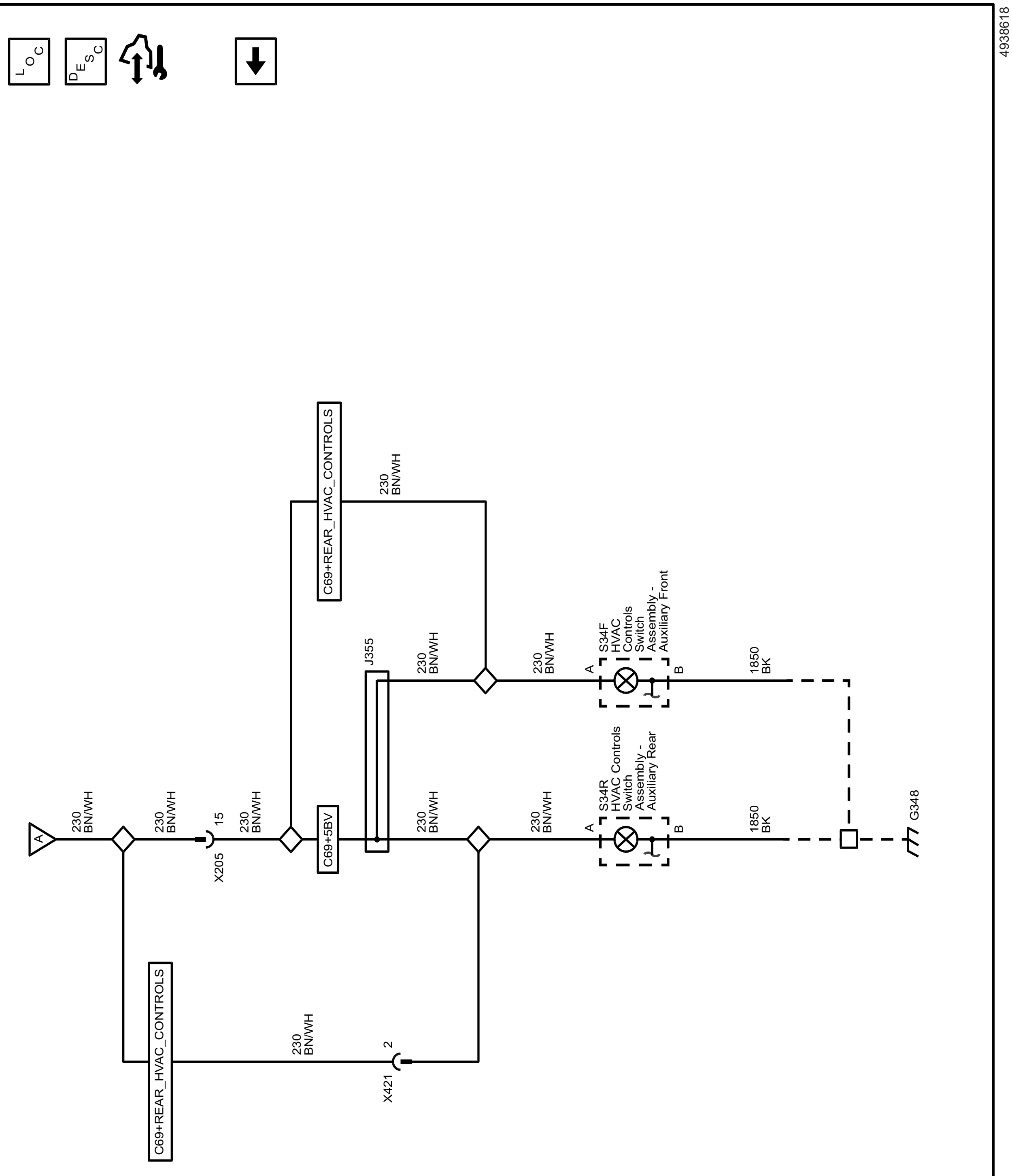
Interior Lights Dimming Schematics (Dimming Controls and LED Dimming)


4938606
LOC
DESC
B+
X50A Fuse Block - Underhood
F58UA 10A
F59UA 10A
K3
H2
X3
J241
2140 RD/WH
3840 RD/WH
2
3
B+
B+
K9 Body Control Module
18
X3
6817 YE
J207
K34/W1Y
6817 YE
A4
X1
X52A Fuse Block - Passenger Compartment
F2PA 2A
X2 - A7 (Not Used)
A6
X1
6136 BN
A15
X200
6136 BN
G
X1
X85 Steering Wheel Air Bag Coil
D
X2
6136 BN
J208
W1Y
-W1Y
6136 BN
6136 BN
6
S70L Steering Wheel Controls Switch - Left
8
350 BK
6136 BN
2
S70R Steering Wheel Controls Switch - Right
1
350 BK
G302
6817 YE
X1
7
A11 Radio
1382 YE/GY
1
S155 Lane Departure Warning Switch
8
2151 BK/WH
6817 YE
4
S16 Driver Information Center Switch
5
351 BK/WH
G302
S30 Headlamp Switch
15
812 OG/WH
12
12V
13
44 D-GN
11
X3
8
351 BK/WH

Interior Lights Dimming Schematics (I/P Bulb Dimming (1 of 2))


K9
Body
Control
Module
X2 3
230
BN/WH
J250
230
BN/WH
7
S30
Headlamp
Switch
8
351
BK/WH
B
S74
Tow/Haul
Mode
Switch
A
D
S75
Traction
Control
Switch
C
X1 C
S34
HVAC
Controls
Switch
Assembly
X1 B
550
BK
X1 C2
X52A
Fuse Block -
Passenger
Compartment
X2 C8
J356
C36+C69
C36-C69
A
X500 A6
X319 D
X600 B6
A31
AU3
B
S79D
Window
Switch -
Driver
F
450
BK
S13D
Door Lock
Switch -
Driver
S85
Auxiliary
Blower
Motor
Switch
S79P
Window
Switch -
Passenger
1850
BK
S13P
Door Lock
Switch -
Passenger
G302
G304
G347
G348
LOC
DESC
4938615

Interior Lights Dimming Schematics (I/P Bulb Dimming (2 of 2))


4938618
LOC
DESC
A
230 BN/WH
230 BN/WH
15
X205
230 BN/WH
C69+REAR_HVAC_CONTROLS
230 BN/WH
C69+5BV
J355
230 BN/WH
230 BN/WH
230 BN/WH
230 BN/WH
A
S34F HVAC Controls Switch Assembly - Auxiliary Front
B
1850 BK
A
S34R HVAC Controls Switch Assembly - Auxiliary Rear
B
1850 BK
G348
C69+REAR_HVAC_CONTROLS
230 BN/WH
2
X421

Description and Operation

Exterior Lighting Systems Description and Operation

Exterior Lamps

The exterior lighting consist of the following lamps:

- Headlamps
- Daytime running lamps (DRL)
- Park lamps
- Tail lamps
- License lamps
- Marker lamps
- Turn signal lamps
- Stop lamps
- Center high mounted stop lamp (CHMSL)
- Backup lamps

Low Beam Headlamp Operation

The headlamps may be turned ON in 3 different ways:

- When the headlamp switch in the HEAD position for normal operations
- When the headlamp switch is in the AUTO position, for automatic lamp control (ALC)
- When the headlamp switch is placed in the AUTO position, with the windshield wipers ON in daylight conditions, after a 6 second delay

Battery voltage is applied at all times to the coil and switch sides of the LOW BEAM PCB Relay located in the underhood fuse block. With the headlamp switch in the headlamps ON position, ground is applied through the headlamps ON switch signal circuit to the body control module (BCM) signaling the headlamps ON request. In response to this signal, the BCM applies ground through the low beam relay control circuit energizing the LOW BEAM PCB Relay. With the relay energized, battery voltage is applied through the switch side of the relay, the LT and RT LOW BEAM fuses, and the low beam supply voltage circuits illuminating the low beam headlamps.

High Beam Headlamp Operation

Battery voltage is applied at all times to the coil and switch sides of the HIGH BEAM PCB Relay located in the underhood fuse block. When the headlamp dimmer switch is placed in the high beam position, the headlamp dimmer switch signal circuit to the BCM is pulled low signaling the headlamp high beam request. In response to this signal, the BCM applies ground through the high beam relay control circuit energizing the high beam relay. With the relay energized, battery voltage is applied through the switch side of the relay, the LT and RT HIGH BEAM fuses, and the high beam supply voltage circuits illuminating the high beam headlamps. At the same time the BCM sends a serial data message to the instrument panel cluster (IPC) requesting the IPC to illuminate the high beam indicator.

Flash to Pass (FTP)

When the headlamp dimmer switch is pulled toward the driver, the flash to pass signal circuit to the BCM is pulled low signaling the flash to pass request. The BCM then turns ON the high beam headlamps as described above until the headlamp dimmer switch is released. If the low beam headlamps were ON during FTP operation they will remain ON.

Daytime Running Lamps (DRL) and Automatic Lamp Control (ALC)

The low beam headlamps are used for DRL operation at a reduced intensity. The DRLs will operate only with the ignition ON, the headlamp switch in the AUTO position, and the gear selector out of the park position. No other exterior lamps such as the parking lamps, tail lamps, etc. will be on when the DRL are being used. The instrument panel will not be illuminated either.

DRL operation is determined by the ambient light sensor and controlled by the body control module (BCM). The ambient light sensor is a light-sensitive transistor used to monitor outside lighting conditions. The BCM provides a 5-volt reference signal to the sensor. The sensor will vary this voltage signal between 0.2 and 4.9 volts depending on outside lighting conditions. The BCM monitors the ambient light sensor signal circuit to determine if outside lighting conditions are correct for either DRL or ALC operation. When the BCM determines the conditions are met for DRL operation, it applies ground to the DRL relay control circuit energizing the DRL PCB Relay. With the relay energized, battery voltage is applied through the switch side of the relay, the DRL 1 fuse, the DRL 2 fuse, both low beam headlamp fuses, and the low beam supply voltage circuits illuminating the headlamps at a reduced intensity. Any function or condition that turns on the headlamps will cancel DRL operation.

When the BCM detects low light conditions, it will turn OFF the daytime running lamps and turn ON the low beam headlamps as described above in Low Beam Headlamp Operation. The BCM will also turn ON the low beam headlamps in daylight conditions when the windshield wipers are turned ON.

HDLPS Suggested Indicator

If the park lamps are turned ON manually and the ambient light sensor detects a low light condition then the body control module (BCM) will send a message to the instrument panel cluster (IPC) to display the HEADLAMPS SUGGESTED message.

Lights ON Warning

The body control module (BCM) activates the lights ON warning as requested by the headlamp dimmer switch. The lights ON warning sounds when the following occurs:

- The key is out of the ignition.
- The BCM determines that the drivers door is open, signal is low.
- The BCM determines that the headlamp switch is in the PARK or HEAD position.

Park, Tail, Marker and License Lamps

The park, tail, and marker lamps are turned ON when the headlamp switch is placed in either the HEAD or PARK lamp positions, or anytime the automatic light control (ALC) turns the headlamps ON. When the headlamp switch is placed in the park lamp or headlamp positions, ground is applied through the switch signal circuit to the BCM indicating the park lamp ON request. In response to this signal, the BCM applies ground through the park lamp relay control circuit energizing the PRK LAMP Relay. With the relay energized, battery voltage is applied through the switch side of the relay, the park lamp fuses, and the supply voltage circuits illuminating the park, license, side marker, and tail lamps.

Turn Signal Lamps

The BCM 3, BCM 5, and BCM 6 fuses located in the underhood fuse block supply battery voltage to the body control module (BCM) for turn signal, hazard lamp, and stop lamp operation. Voltage from the BCM 5 fuse used for the front and rear left turn signals, voltage from the BCM 3 for the right front turn signal, while voltage from the BCM 6 fuse is used for the right rear turn signal. When the turn signal switch is place in either the LEFT or RIGHT position, ground is applied through the turn signal switch signal circuit to the BCM indicating the turn signal request. In response to this signal, the BCM applies a pulsating voltage to the front and rear turn signal lamps supply voltage circuits cycling the lamps ON and OFF. The BCM also sends a message via to the instrument panel cluster (IPC) to cycle the turn signal indicator ON and OFF depending on the position of the turn signal switch.

Hazard Lamps

The hazard flashers may be activated in any power mode. When the hazard lamp switch is placed in the ON position, ground is applied through the hazard switch signal circuit to the body control module (BCM) indicating the hazard lamps ON request. In response to this signal, the BCM applies a pulsating voltage though all front and rear turn signal supply voltage circuits cycling the lamps ON and OFF. The BCM also sends a serial data message to the instrument panel cluster (IPC) to cycle both turn signal indicators ON and OFF.

Stop Lamps (cargo/passenger)

The brake pedal position sensor is used to sense the action of the driver application of the brake pedal. The brake pedal position sensor provides an analog voltage signal that will increase as the brake pedal is applied. The body control module (BCM) provides a low reference signal and a 5-volt reference voltage to the brake pedal position sensor. When the variable signal reaches a voltage threshold indicating the brakes have been applied, the BCM will apply battery voltage to the right and left stop lamp control circuits, transmission control module (TCM), engine control module (ECM), center high mounted stop lamp (CHMSL) control circuit, and trailer brake control module if equipped.

Stop Lamps (cutaway)

The BCM controls the stop lamps based on the input from the stop lamp switch. When the BCM detects the brake pedal is depressed, B+ is applied to the stop lamp relay control circuit energizing the Stop Lamp PCB Relay. With the relay energized, B+ is applied to the stop/turn lamp supply voltage circuits illuminating both stop lamps.

Backup Lamps

When the gear selector is placed in the REVERSE position, the powertrain control module (PCM) sends a serial data message to the BCM indicating the backup lamps ON request. The BCM then applies battery voltage through the backup relay control circuit energizing the BCK/UP LAMP PCB Relay. With the relay energized, battery voltage is applied through the switch side of the relay, the T/LAMP BCK/UP fuse, the AUX/TRLR BCK/UP fuse and the supply voltage circuits illuminating the left and right backup lamps and the backup alarm. The engine may need to be running for the backup lamps to function.

Rear Fog Lamps

The rear fog lamps are located in the rear bumper. The fog lamps will operate only when the ignition in the RUN or CRANK positions. When the rear fog lamp switch is turned ON, ground is applied through the rear fog lamp switch signal circuit to the body control module (BCM) indicating the rear fog lamps ON request. In response to this signal, the BCM applies ground to the rear fog lamp relay control circuit energizing the REAR FOG LP PCB Relay. With the relay energized, battery voltage is applied through the switch side of the relay, the RR FOG LP fuse and the rear fog lamp supply voltage circuit to the left and right rear fog lamps. The BCM sends a serial data message to the instrument panel cluster (IPC) requesting the rear fog lamp indicator be illuminated. The rear fog lamps will deactivate if the headlamps are turned OFF, if the ignition is turned to the OFF position upon a key cycle, or if the driver turns the rear fog lamp switch OFF.

Battery Rundown Protection/ Inadvertent Power

The BCM controls the lighting system through circuits that enable the exterior lamp functions of the park lamps, the head lamps, the fog lamps, and the interior lamps. The BCM will open these enabling circuits 10 minutes after the ignition switch is turned OFF with no lamp switch activity. If the ignition switch is turned to any position other than OFF, or if a lamp switch is activated during this time period, the timer will reset for another 10 minutes.

Interior Lighting Systems Description and Operation

The interior lighting consist of two groups; lamps that may not be manually dimmed (Interior Lamps) and lamps that may be dimmed (Interior Lamps Dimming).

The first group listed below includes lamps that may not be dimmed:

- Front dome/reading lamps
- Middle dome/reading lamps
- Rear dome/reading lamps
- Sunshade Mirror Lamps
- Underhood Lamp

Interior Lamps Features

The interior lamps system features the following functions:

- An illuminated entry feature that illuminates the courtesy lamps when entering the vehicle or activating the remote keyless entry system.
- An illuminated exit feature that illuminates the courtesy lamps when the ignition key has been removed from the ignition.
- An inadvertent power feature that supplies voltage to all interior lamps after the ignition is turned OFF. The inadvertent power feature will deactivate all interior lamps after 10 minutes to prevent battery rundown.
- A theater dimming feature that will slowly dim the interior lamps from full brightness to OFF.
- Individual switches for control of each interior lamp that is not illuminate with the interior lamp switch.

Courtesy Lamps (−YF2/YF7)

When any one of the doors is opened, ground is applied through the door latch door open switch and the door open switch signal circuit to the BCM indicting the door open position. In response to this signal, the BCM then applies battery voltage through the courtesy lamp supply voltage circuits illuminating the courtesy lamps.

Courtesy Lamps (+YF2/YF7)

When any one of the doors is opened, ground is applied through the door latch door open switch and the door open switch signal circuit to the BCM indicting the door open position. In response to this signal, the BCM then applies battery voltage to the courtesy lamp relay control circuit energizing the UPFITTR CTSY LAMPS PCB Relay. With the relay energized. battery voltage is applied through the switch side of the relay and the supply voltage circuits illuminating the courtesy lamps.

Courtesy Lamps Manual Operation

The courtesy lamps can be manually turned ON by the IP dimmer switch. When the dimmer switch is placed in the DOME position, ground is applied through the dimmer switch and the courtesy lamp switch ON signal circuit to the BCM indicating the courtesy lamps ON request. In response to this signal, the BCM then applies battery positive voltage through the courtesy lamp supply voltage circuits illuminating the courtesy lamps listed above. The courtesy lamps ON operation of the dimmer switch will override any BCM operation of the interior lamps already in progress.

Keyless Entry Interior Illumination

When the remote function actuator transmitter is used to unlock the doors, the BCM receives a door-unlock signal. The BCM must have inputs that indicate that the ignition switch is OFF, the courtesy lamp switch is OFF, and all the doors are closed. The BCM will then illuminate the courtesy lamps and will remain illuminated for approximately 25 seconds after the door is closed. If the door locks are activated to the LOCK position, or if the ignition switch is turned to either the RUN or START position, the BCM will turn OFF the courtesy lamps immediately.

Courtesy/Illuminated Exit

The illuminated exit feature will activate the courtesy lamps when the key IN input of the BCM transitions from an active state to an inactive state (removing the ignition key). When the key is removed from the ignition, the key IN input to the BCM becomes inactive. The BCM will illuminate the courtesy lamps for approximately 25 seconds.

Theater Dimming

The theater dimming feature that will slowly dim the interior lamps from full brightness to OFF. The following actions will over ride the theater dimming feature causing the courtesy lamps to deactivate immediately if no other BCM function commands the courtesy lamps ON:

- A transition from active to inactive of the interior lamps switch, turning OFF the interior lamps switch
- A LOCK command from the remote keyless entry system
- A last door closed locking function, locking and closing all the doors

Underhood Compartment Lamp

The BCM supplies battery positive voltage through the inadvertent power courtesy lamps circuit to the underhood compartment lamp. When the hood is opened, the underhood compartment lamp switch closes to ground and the lamp illuminates.

Dome/Reading Lamps

The dome/reading lamp is a duel purpose lamp that can be illuminated two different ways. First, the lamp can be turned ON during courtesy lamp operation as described above. Second, the lamps can be turned ON individually for reading lamp operation by the lamp switch. The BCM supplies battery voltage through the inadvertent power courtesy lamp circuit to the dome/reading lamp for reading lamp operation only.

Sunshade Vanity Mirror Lamps

The BCM supplies battery voltage through the inadvertent power courtesy lamps circuit to the left and right vanity mirror lamps. When the vanity mirror cover on the sunshade is opened, the vanity mirror lamp switch is closed to ground and the lamp illuminates.

Interior Lamps Dimming

The second interior lighting group includes lamps which may be dimmed. This group may use a combination of vacuum fluorescent (VF) illumination, LED illumination and incandescent lamps.

- Headlamp switch
- Tow/haul switch
- Traction control switch
- HVAC control module
- Driver window switch
- Driver power door lock switch
- Auxiliary blower motor switch
- Front passenger window switch
- Front passenger door lock switch
- Front auxiliary HVAC control assembly

- Rear auxiliary HVAC control assembly
- Steering wheel controls
- Inflatable restraint I/P module disable switch
- Driver information center (DIC) display switch
- Radio

When the ignition switch is turned to the RUN position, the instrument panel cluster (IPC), radio VF display, and the HVAC control assembly turns ON at maximum brightness. When the headlamp switch is in the PARK or HEADLAMP ON position, all incandescent and LED back lighting turn ON at the dimming level indicated by the instrument panel (I/P) dimmer switch. The dimmer switch is used to increase and decrease the brightness of the interior backlighting components. The BCM supplies a voltage reference through the I/P dimming voltage reference circuit to the interior lamp dimmer switch, which is part of the headlamp switch. When the dimmer switch is placed in a desired brightness position, reference voltage is applied through the dimmer switch rheostat and the I/P lamps dimmer switch signal circuit to the BCM. The BCM interprets this voltage signal, then applies a pulse width modulated (PWM) voltage through the I/P lamps supply voltage circuits and the LED dimming supply circuit to all related interior backlighting lamps illuminating them to the desired level of brightness.

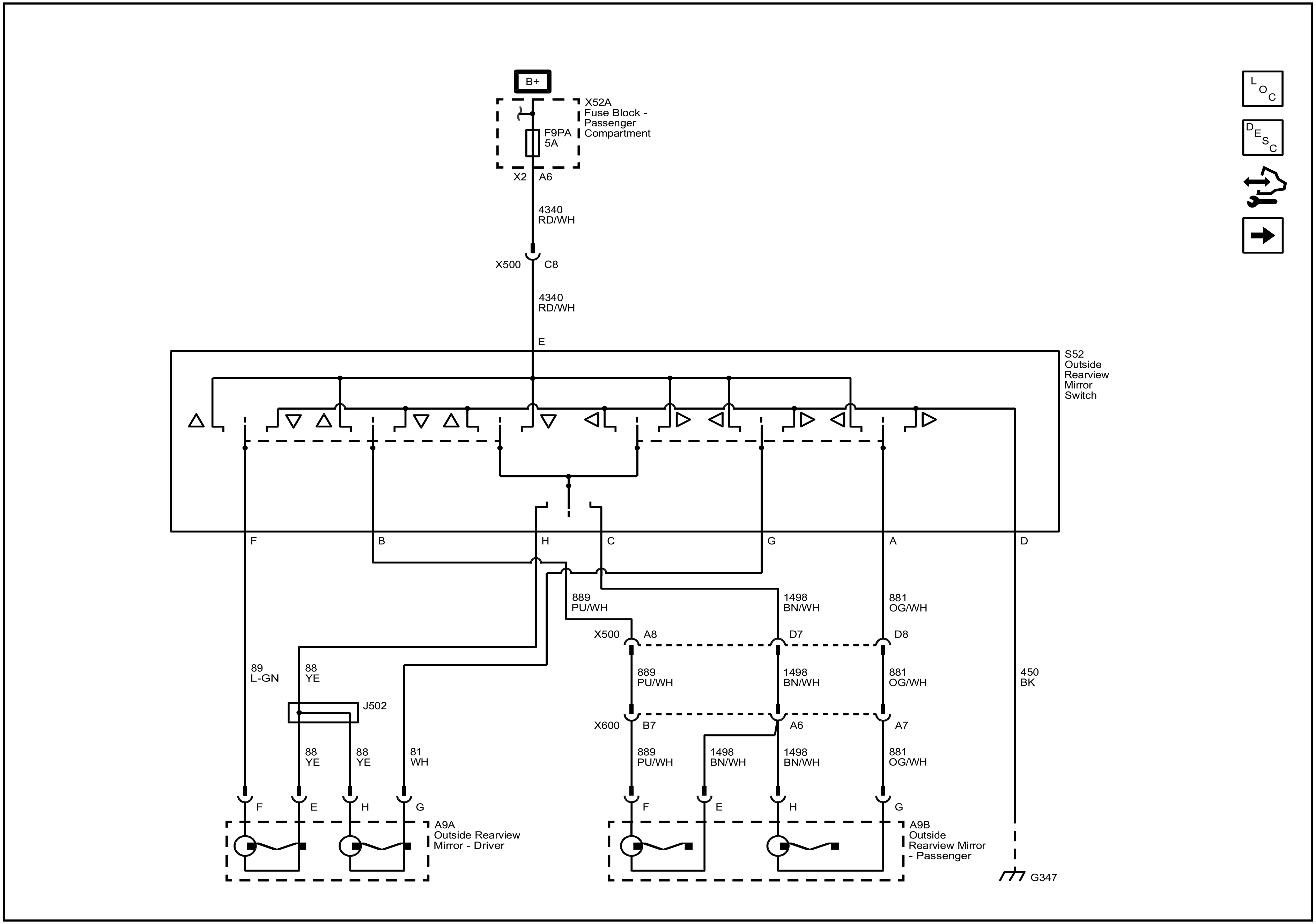
Battery Rundown Protection / Inadvertent Power

The BCM controls the lighting system through circuits that enable the exterior lamp functions of the park lamps, the head lamps, the fog lamps, and the interior lamps. The BCM opens these enabling circuits 10 minutes after the ignition switch is turned OFF with no lamp switch activity. If the ignition switch is turned to any position other than OFF, or if a lamp switch is activated during this time period, the timer resets for another 10 minutes.

Mirrors

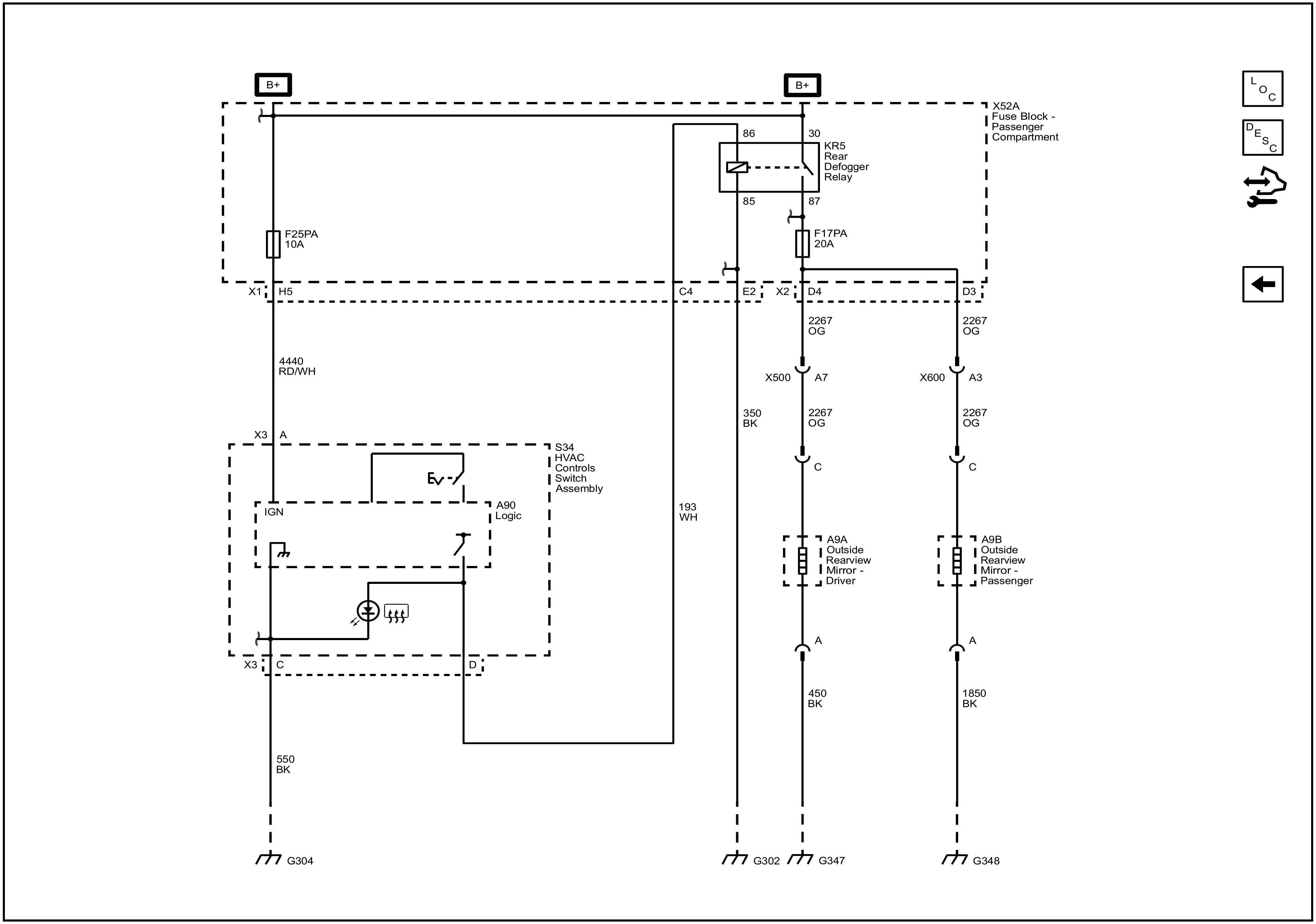
Schematic and Routing Diagrams

Outside Rearview Mirror Schematics (Pan and Tilt (DEB or DE5))


B+
X52A
Fuse Block - Passenger Compartment
F9PA
5A
X2
A6
4340
RD/WH
X500
C8
4340
RD/WH
E
S52
Outside
Rearview
Mirror
Switch
F
B
H
C
G
A
D
889
PU/WH
1498
BN/WH
881
OG/WH
X500
A8
D7
D8
889
PU/WH
1498
BN/WH
881
OG/WH
X600
B7
A6
A7
889
PU/WH
1498
BN/WH
1498
BN/WH
881
OG/WH
89
L-GN
88
YE
J502
88
YE
88
YE
81
WH
450
BK
F
E
H
G
A9A
Outside Rearview Mirror - Driver
F
E
H
G
A9B
Outside
Rearview Mirror
- Passenger
G347

4938620

Outside Rearview Mirror Schematics (Heated Mirrors (DEB or DE5))


B+
B+
X52A
Fuse Block -
Passenger
Compartment
86
30
KR5
Rear
Defogger
Relay
85
87
F25PA
10A
F17PA
20A
X1
H5
C4
E2
X2
D4
D3
2267
OG
2267
OG
4440
RD/WH
X500
A7
X600
A3
350
BK
2267
OG
2267
OG
X3
A
S34
HVAC
Controls
Switch
Assembly
C
C
IGN
A90
Logic
193
WH
A9A
Outside
Rearview
Mirror -
Driver
A9B
Outside
Rearview
Mirror -
Passenger
A
A
X3
C
D
450
BK
1850
BK
550
BK
G304
G302
G347
G348
4938621

Description and Operation

Outside Mirror Description and Operation

Outside Mirror System Components

The power mirror system consists of the following components:

- Power mirror switch
- Selector switch
- Left outside power mirror
- Right outside power mirror
- OSRVM 10A fuse
- HVAC control module
- Left outside power mirror
- Right outside power mirror

Each of the outside power mirrors contains two reversible motors. The vertical motor operates the up and down directions and the horizontal motor operates the left and right directions. Each of the power mirror motors are circuit breaker protected.

Power Mirror System Controls

The power mirror switch incorporates a mirror select switch and a four position mirror direction switch.

The mirror select switch allows the operator to select the mirror to be moved by rotating counterclockwise to the L position, left outside power mirror, or rotating clockwise to the R position, right outside power mirror.

The mirror direction switch is a 4 position switch that allows the operator to move the selected mirror up, down, left or right.

Power Mirror System Operation

The power mirror switch receives power through the battery supply voltage circuit and the OSRVM fuse. The power mirror switch also receives a constant ground.

The four positions of the direction switch have dual switch contacts. Each of the contacts are connected to opposing sides of the appropriate power mirror motors through the selector switch. The selector switch interrupts or completes these circuits depending on the position of the selector switch (L or R).

If the selector switch is placed in the L position and the up switch is depressed, battery voltage will be supplied to the left outside power mirror vertical motor through the left mirror motor up direction circuit and return to the power mirror switch through the mirror motor common circuit then to ground and the mirror will move up. If the down switch is depressed, the common circuit supplies battery voltage and the left mirror motor up direction circuit completes the path to the power mirror switch then to ground and the mirror will move down.

The remainder of the mirror functions operate in the same manner as described above. The thing to remember is, that by placing the power mirror switch in opposing positions (left/right or up/down) will reverse the polarity of the mirror motor, utilizing the same circuits and the power mirror will move accordingly.

Heated Mirror System Controls

The heated mirror system is activated by depressing the rear window defogger switch, which is part of the HVAC control module. For further information on the rear window defogger operation, refer to *Rear Window Defogger Description and Operation on page 2-6*.

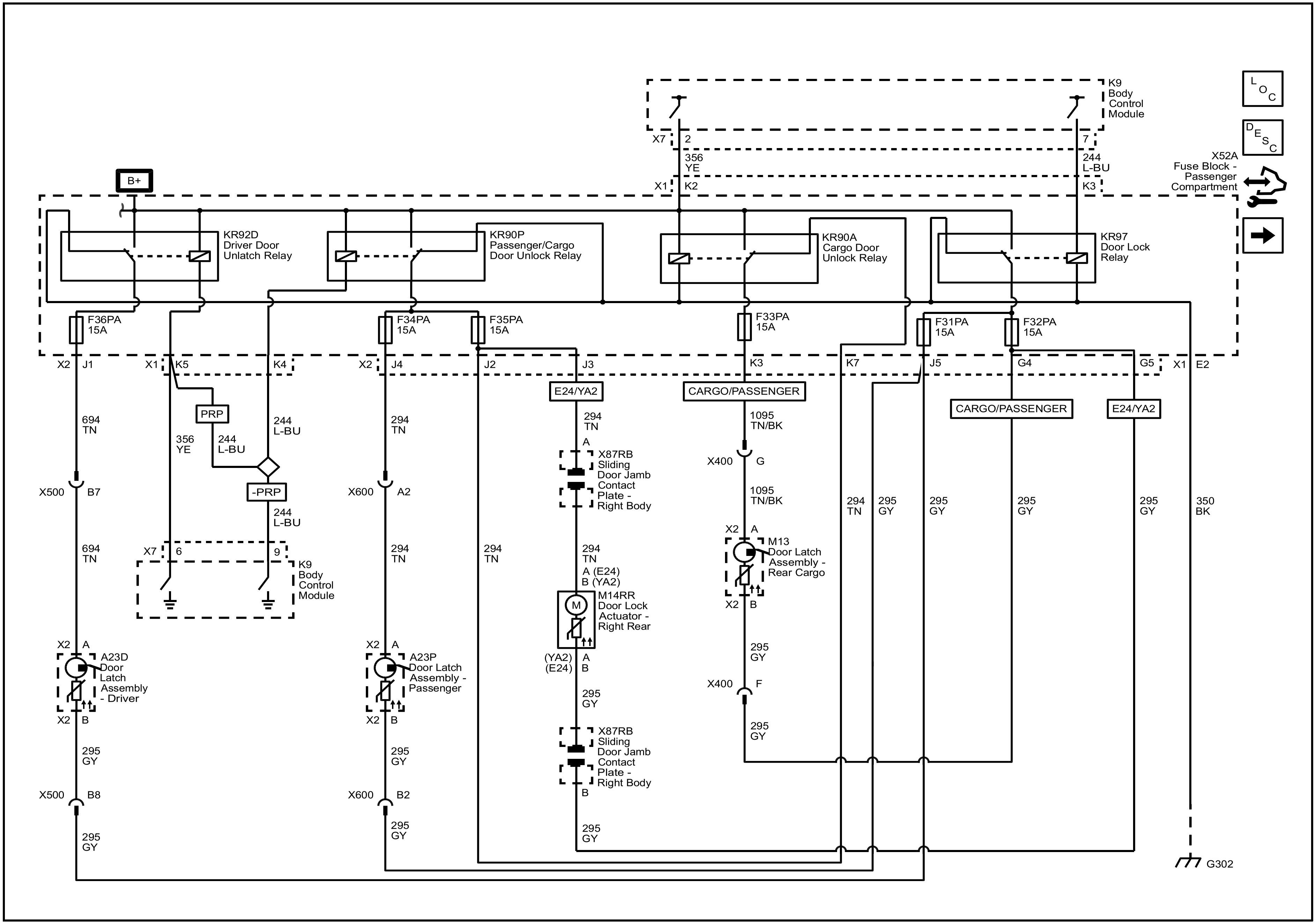
Heated Mirror System Operation

The heated mirror system operates in parallel to the rear window defogger. Each outside rearview mirror contains a heating element that is connected to a constant ground source. When the rear window defogger system is active, battery voltage is available to the outside rearview mirrors through the heated mirror supply voltage circuit. The mirrors will heat up to remove ice, snow or frost and will automatically deactivate when the rear defogger system has timed out, approximately 10 minutes.

Vehicle Access

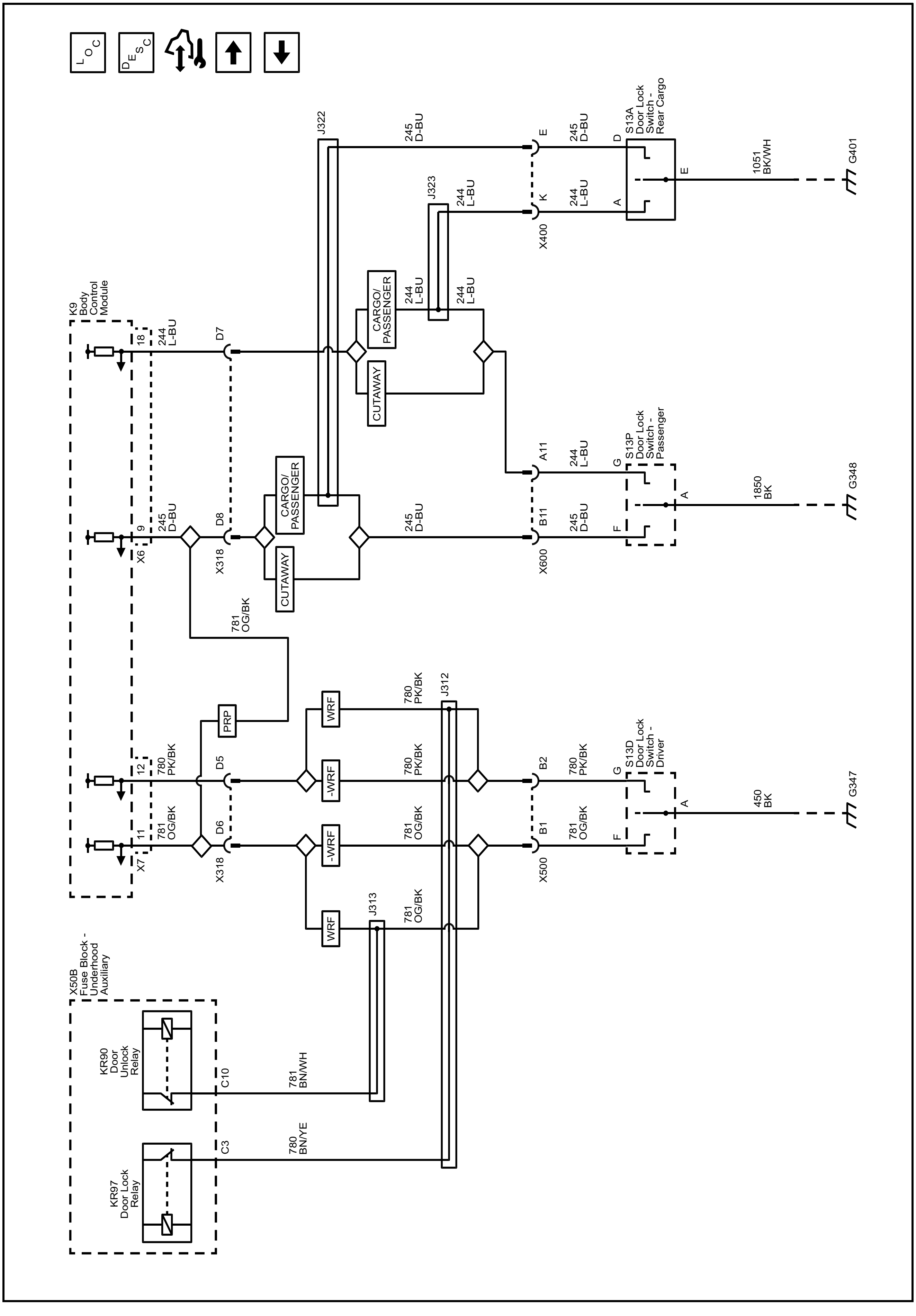
Schematic and Routing Diagrams

Door Lock/Indicator Schematics (Lock/Unlock Control)

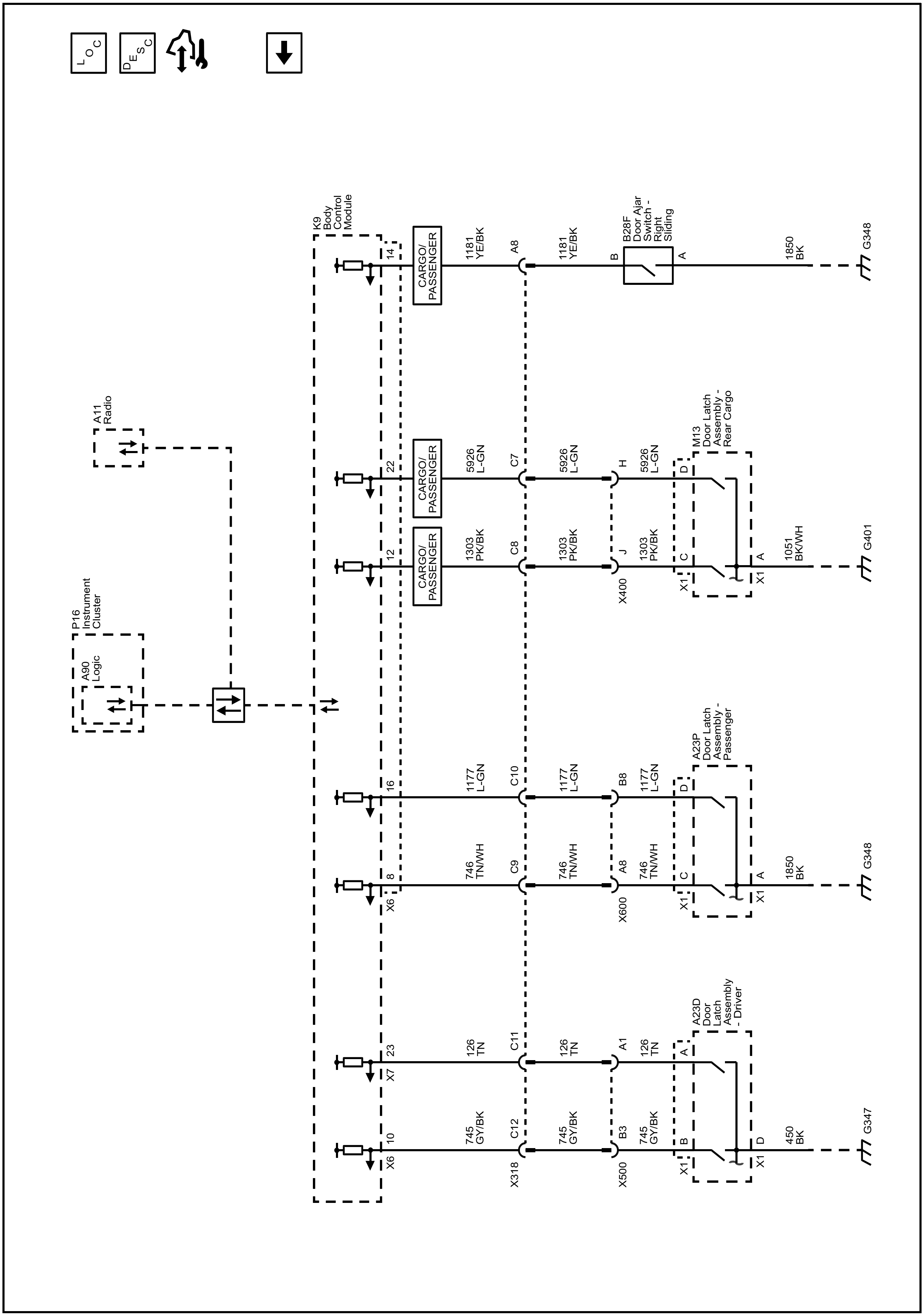


K9 Body Control Module
X7 2
356 YE
X1 K2
7
244 L-BU
K3
X52A Fuse Block - Passenger Compartment
B+
KR92D Driver Door Unlatch Relay
KR90P Passenger/Cargo Door Unlock Relay
KR90A Cargo Door Unlock Relay
KR97 Door Lock Relay
F36PA 15A
F34PA 15A
F35PA 15A
F33PA 15A
F31PA 15A
F32PA 15A
X2 J1
X1 K5
K4
X2 J4
J2
J3
K3
K7
J5
G4
G5
X1 E2
PRP
-PRP
E24/YA2
CARGO/PASSENGER
694 TN
356 YE
244 L-BU
294 TN
1095 TN/BK
295 GY
350 BK
X500 B7
X600 A2
X400 G
X7 6
9
K9 Body Control Module
X87RB Sliding Door Jamb Contact Plate - Right Body
A
A (E24)
B (YA2)
M14RR Door Lock Actuator - Right Rear
(YA2) A
(E24) B
B
M
X2 A
M13 Door Latch Assembly - Rear Cargo
X2 B
X400 F
A23D Door Latch Assembly - Driver
A23P Door Latch Assembly - Passenger
X500 B8
X600 B2
G302
4938656

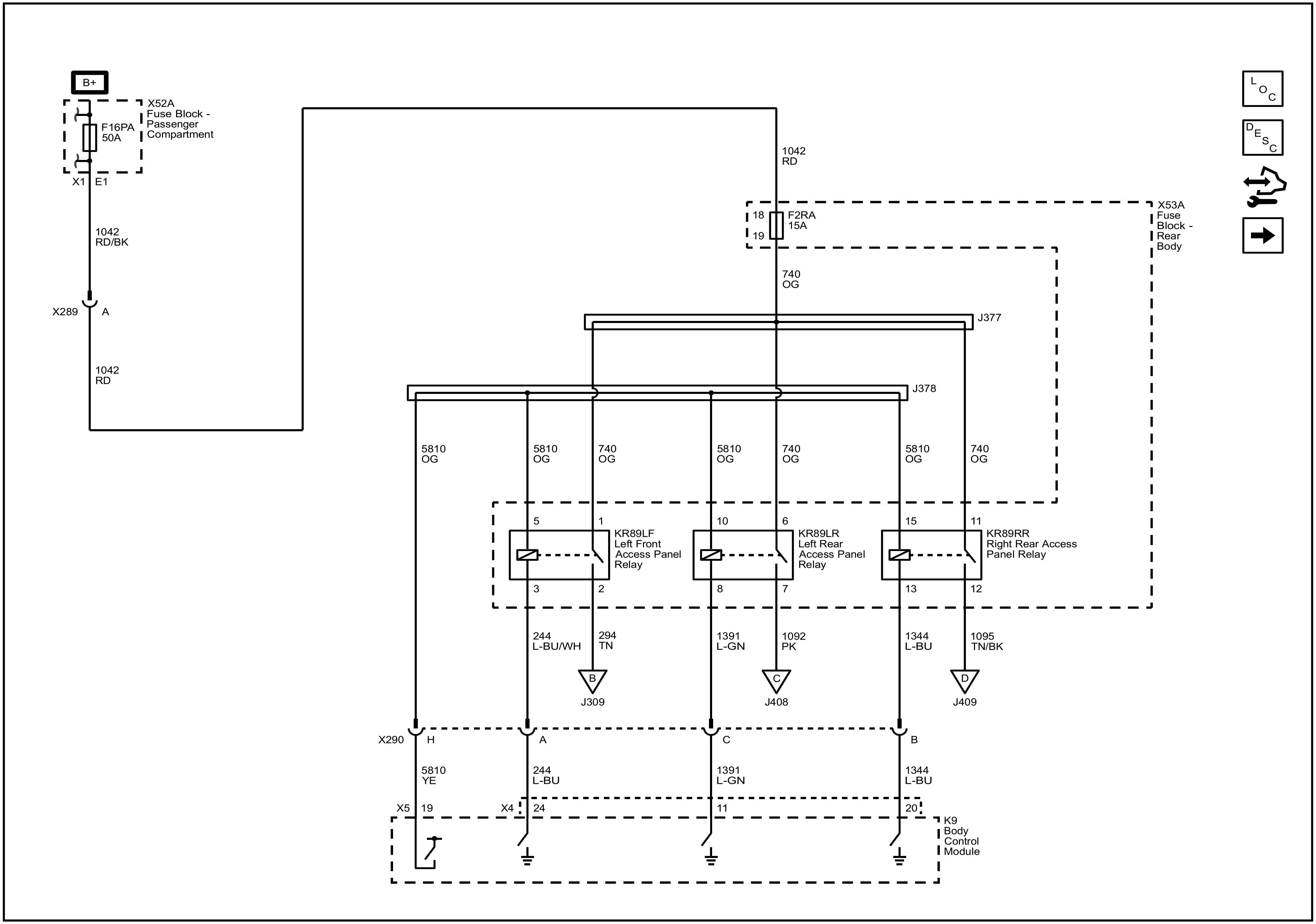
Door Lock/Indicator Schematics (Door Lock Switches (AU3))


4938665
K9 Body Control Module
X6
X7
18
9
12
11
244 L-BU
245 D-BU
780 PK/BK
781 OG/BK
D7
D8
D5
D6
X318
CARGO/ PASSENGER
CUTAWAY
PRP
781 OG/BK
WRF
-WRF
780 PK/BK
J322
J323
J312
J313
245 D-BU
244 L-BU
X400
E
K
D
A
S13A Door Lock Switch - Rear Cargo
1051 BK/WH
G401
X600
A11
B11
G
F
S13P Door Lock Switch - Passenger
1850 BK
G348
X500
B2
B1
S13D Door Lock Switch - Driver
450 BK
G347
X50B Fuse Block - Underhood Auxiliary
KR90 Door Unlock Relay
KR97 Door Lock Relay
C10
C3
781 BN/WH
780 BN/YE

Door Lock/Indicator Schematics (Door Ajar Switches)

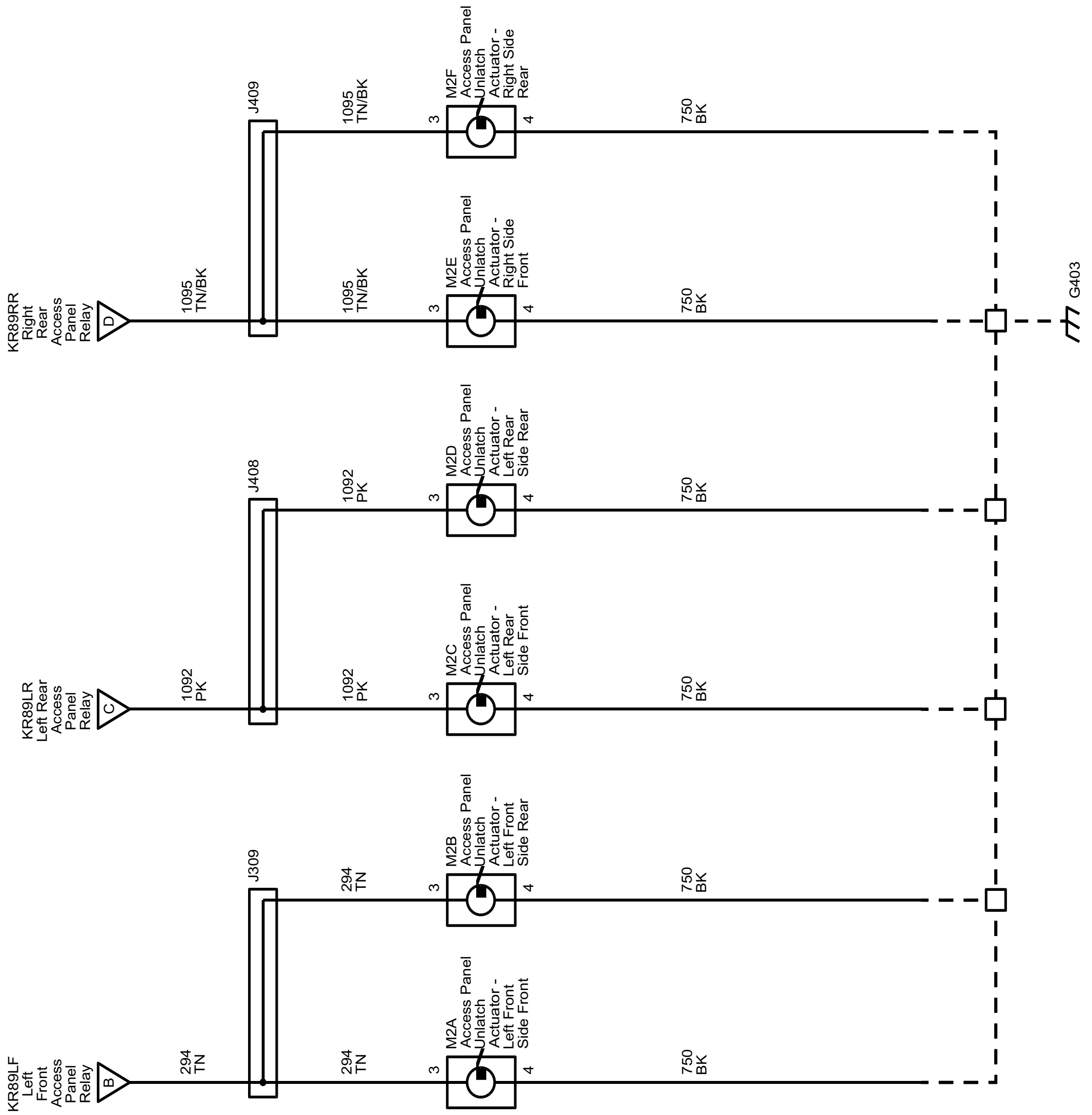

4938674
LOC
DESC
P16 Instrument Cluster
A90 Logic
A11 Radio
K9 Body Control Module
X6
X7
14
22
12
16
8
23
10
CARGO/ PASSENGER
1181 YE/BK
5926 L-GN
1303 PK/BK
1177 L-GN
746 TN/WH
126 TN
745 GY/BK
A8
C7
C8
C10
C9
C11
C12
X318
H
J
X400
B8
A8
X600
A1
B3
X500
B
A
B28F Door Ajar Switch - Right Sliding
M13 Door Latch Assembly - Rear Cargo
A23P Door Latch Assembly - Passenger
A23D Door Latch Assembly - Driver
D
C
X1
A
B
D
1850 BK
1051 BK/WH
450 BK
G348
G401
G347

Release Systems Schematics (Side Access Panel Relay Controls (PRP))


B+
X52A
Fuse Block -
Passenger
Compartment
F16PA
50A
X1
E1
1042
RD/BK
X289
A
1042
RD
1042
RD
X53A
Fuse
Block -
Rear
Body
18
19
F2RA
15A
740
OG
J377
J378
5810
OG
5810
OG
740
OG
5810
OG
740
OG
5810
OG
740
OG
5
1
KR89LF
Left Front
Access Panel
Relay
3
2
10
6
KR89LR
Left Rear
Access Panel
Relay
8
7
15
11
KR89RR
Right Rear Access
Panel Relay
13
12
244
L-BU/WH
294
TN
1391
L-GN
1092
PK
1344
L-BU
1095
TN/BK
B
J309
C
J408
D
J409
X290
H
A
C
B
5810
YE
244
L-BU
1391
L-GN
1344
L-BU
X5
19
X4
24
11
20
K9
Body
Control
Module

4938680

Release Systems Schematics (Side Access Panel Actuators (PRP))


KR89LF Left Front Access Panel Relay
B
294 TN
J309
294 TN
3
M2A Access Panel Unlatch Actuator - Left Front Side Front
4
750 BK
294 TN
3
M2B Access Panel Unlatch Actuator - Left Front Side Rear
4
750 BK
KR89LR Left Rear Access Panel Relay
C
1092 PK
J408
1092 PK
3
M2C Access Panel Unlatch Actuator - Left Rear Side Front
4
750 BK
1092 PK
3
M2D Access Panel Unlatch Actuator - Left Rear Side Rear
4
750 BK
KR89RR Right Rear Access Panel Relay
D
1095 TN/BK
J409
1095 TN/BK
3
M2E Access Panel Unlatch Actuator - Right Side Front
4
750 BK
1095 TN/BK
3
M2F Access Panel Unlatch Actuator - Right Side Rear
4
750 BK
G403
4938686

Description and Operation

Access Panel Description and Operation

The access panel entry system is a supplementary vehicle entry device. Radio frequencies or discharged batteries may disable the system.

The access panel entry system allows you to operate the following components:

- The Left Front Access Panel if equipped
- The Left Rear Access Panel
- The Right Rear Access Panel

Pro/Access models use the key fob to activate up to 3 access panels depending on the cargo door option:

- One access panel on the right side of the vehicle.
- One access panel on the left side of vehicles equipped with left side cargo doors.
- Two access panels on the left side of vehicles not equipped with left side cargo doors.

The access panel entry system has the following main components:

- The transmitters
- The remote control door lock receiver (RCDLR).
- The body control module (BCM).

This vehicle is not equipped with remote keyless entry system (RKE). The transmitter is used exclusively to operate the access panels. When you press any button on a programmed k transmitter, the transmitter sends a signal to the RCDLR. The RCDLR sends a class 2 message to the body control module (BCM) which activates the appropriate access panel relay, releasing the panel.

Rolling Code

The access panel entry system uses rolling code technology. Rolling code technology prevents anyone from recording the message sent from the transmitter and using the message in order to gain entry to the vehicle. The term, rolling code, refers to the way that the keyless entry system sends and receives the signals. The transmitter sends the signal in a different order each time. The transmitter and the RCDLR are synchronized to the appropriate order. If a programmed transmitter sends a signal that is not in the order that the RCDLR expects, then the transmitter is out of synchronization. This occurs after 256 presses of any transmitter button when it is out of range of the vehicle.

Door Ajar Indicator Description and Operation

Door Ajar Indicator System Components

The door ajar indicator system consists of the following components:

- The body control module (BCM)
- The instrument panel cluster (IPC)
- The driver information center (DIC)
- The door ajar switch

Door Ajar Operation

The body control module (BCM) receives a discrete input from the door ajar switch to indicate the status of the door. The BCM then communicates this status to the instrument panel cluster (IPC) via GMLAN serial data. The IPC, upon receipt of this message, will illuminate the door ajar message in the driver information center (DIC) and also send a GMLAN serial data message to the radio to activate the door ajar audible warning when the following conditions are met:

- The transmission is shifted out of PARK.
- The vehicle speed is greater than 8 km/h (5 mph).

Power Door Locks Description and Operation

Door Lock System Components

The power door lock system consists of the following components:

- Driver door lock switch
- Front passenger door lock switch
- Rear cargo door lock switch
- Door lock relay
- Passenger door unlock relay
- Driver door unlock relay
- Cargo door unlock relay
- Body Control Module (BCM)
- Reversible door lock actuators in each of the doors
- DRV LKS 10A fuse, driver door unlock relay supply voltage
- CARGO UNLK 10A fuse, cargo door unlock relay supply voltage
- DOOR LKS 20A fuse, door lock relay and passenger door unlock relay supply voltage

Door Lock System Controls

The power door lock system can be controlled by any of the following:

- A power door lock or unlock switch activation
- A keyless entry transmission
- A lock out prevention function
- A last door locking function

Driver, Passenger and Cargo Door Lock Operation

When any of the door lock switches are placed in the lock position, a ground signal is applied to the BCM through the door lock signal circuit. Upon receiveing this signal, the BCM grounds the control side of the door lock relay through the door lock relay control circuit. Since the other side of the door lock relay winding is connected to battery voltage, the relay is energized. This causes the contacts to close and complete the path from the DOOR LKS fuse through the battery voltage circuit. Voltage is then applied to the lock side of the door lock actuators through the door lock actuator lock circuits. Since the other side of the all the door lock actuators are connected to the normally closed contacts of their respective unlock relays to ground, the doors lock.

The lock function can also be accomplished by the BCM supplying ground to the door lock relay control circuit by either of the following:

- A keyless entry lock transmission
- A last door lock function

Driver Door Unlock Operation

When any of the door lock switches are placed in the unlock position, a ground signal is applied to the BCM through the door unlock signal circuit. Upon receiveing this signal, the BCM grounds the control side of the driver door unlock relay through the driver door unlock relay control circuit. Since the other side of the driver door unlock relay winding is connected to battery voltage, the relay is energized. This causes the contacts to close and complete the path from the DRV LKS fuse through the battery voltage circuit. Voltage is then applied to the unlock side of the driver door lock actuator through the driver door lock actuator unlock control circuit. Since the other side of the the driver door lock actuator is connected to the normally closed contacts of the door lock relay to ground, the driver door unlocks.

The driver door unlock function can also be accomplished by the BCM supplying ground to the driver door unlock relay control circuit by either of the following:

- A keyless entry unlock transmission
- A lock out prevention function

Passenger Door Unlock Operation

When any of the door lock switches are placed in the unlock position, a ground signal is applied to the BCM through the door unlock signal circuit. Upon receiveing this signal, the BCM grounds the control side of the passenger door unlock relay through the door unlock relay control circuit. Since the other side of the door unlock relay winding is connected to battery voltage, the relay is energized. This causes the contacts to close and complete the path from the DOOR LKS fuse through the battery voltage circuit. Voltage is then applied to the unlock side of the passenger door lock actuators through the door lock actuator unlock control circuits. Since the other side of the the door lock actuators are connected to the normally closed contacts of the door lock relay to ground, the passenger doors unlock.

The door unlock function can also be accomplished by the BCM supplying ground to the passenger door unlock relay control circuit during a keyless entry unlock transmission.

Cargo Door Unlock Operation

When any of the door lock switches are placed in the unlock position, a ground signal is applied to the BCM through the door unlock signal circuit. Upon receiveing this signal, the BCM grounds the control side of the cargo door unlock relay through the cargo door unlock relay control circuit. Since the other side of the cargo door unlock relay winding is connected to battery voltage, the relay is energized. This causes the contacts to close and complete the path from the CARGO UNLK fuse through the battery voltage circuit. Voltage is then applied to the unlock side of the cargo door lock actuator through the door lock actuator unlock control circuit. Since the other side of the the cargo door lock actuator is connected to the normally closed contacts of the door lock relay to ground, the cargo door unlocks.

The cargo door unlock function can also be accomplished by the BCM supplying ground to the cargo door unlock relay control circuit during a keyless entry unlock transmission.

Delay Locking Operation

This feature allows the operator to lock all the doors from a door lock switch with the side doors(s) open. The side cargo doors have contact plates that complete the power door lock and unlock control circuits, among others, when the side cargo doors are closed, and interrupt these circuits when the doors are open. When a lock function occurs and the BCM senses an active state on any door ajar switch signal circuit the driver, front passenger and cargo doors will lock as described. The BCM continues to monitor door ajar switch signal circuits. When the BCM senses an inactive state, door closed, the BCM will cycle the door lock relay again after approximately 5 seconds to perform another lock function, thus locking the side cargo door(s).

Lockout Prevention

This feature prevents the locking of the driver door if the ignition key is left in the ignition lock cylinder. If a lock function occurs from any door lock switch and the BCM senses a door ajar and the key in ignition switch signal circuit is in the yes state, the BCM will cycle the door lock relay to lock the doors and then cycle the driver door unlock relay to unlock the driver door.

Section 3

Driver Information and Entertainment

Image Display Cameras 3-3
  Schematic and Routing Diagrams 3-3
    Image Display Camera Schematics 3-4
  Description and Operation 3-5
    Rear Vision Camera Description and Operation 3-5

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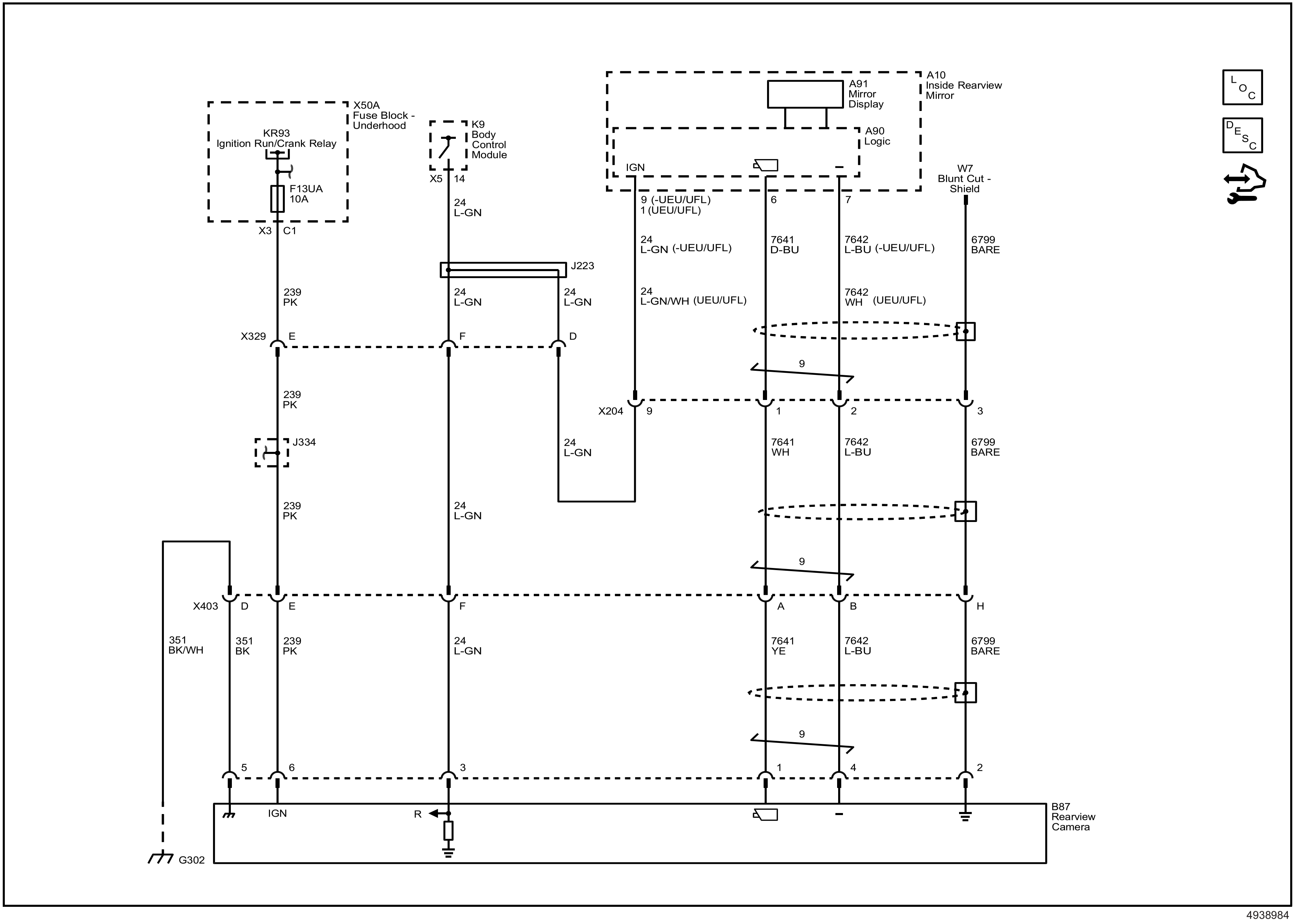
Image Display Cameras

Schematic and Routing Diagrams

Image Display Camera Schematics (Rear Vision Camera (UVC))


L O C
D E S C
X50A
Fuse Block -
Underhood
KR93
Ignition Run/Crank Relay
F13UA
10A
X3 C1
K9
Body
Control
Module
X5 14
24
L-GN
J223
239
PK
24
L-GN
24
L-GN
X329 E
F
D
239
PK
J334
24
L-GN
239
PK
24
L-GN
A10
Inside Rearview
Mirror
A91
Mirror
Display
A90
Logic
IGN
W7
Blunt Cut -
Shield
9 (-UEU/UFL)
1 (UEU/UFL)
6
7
24
L-GN (-UEU/UFL)
7641
D-BU
7642
L-BU (-UEU/UFL)
6799
BARE
24
L-GN/WH (UEU/UFL)
7642
WH (UEU/UFL)
9
X204 9
1
2
3
7641
WH
7642
L-BU
6799
BARE
9
X403 D
E
F
A
B
H
351
BK/WH
351
BK
239
PK
24
L-GN
7641
YE
7642
L-BU
6799
BARE
9
5
6
3
1
4
2
IGN
R
B87
Rearview
Camera
G302
4938984

Description and Operation

Rear Vision Camera Description and Operation

The rear vision camera system consists of the rearview camera and the infotainment system.

When the transmission is placed into R, 12 V is applied to the reverse lamp control circuit by the body control module (BCM). The rearview camera monitors this circuit and when 12 V is seen, indicating that the transmission is in R, the rearview camera will activate. The rearview camera receives ignition voltage and a constant ground to power the camera. Video signal + and video signal – circuits carry the video image from the rearview camera to the infotainment system.

Additionally, the video signal circuits are shielded to prevent any interference which may lead to a loss of video signal resolution and cause a degraded video image. The shield is grounded by the rearview camera.

The following conditions may cause a degraded rear vision camera image:

- Ice, snow, or mud has built up on the rear vision camera
- Dark conditions
- Extreme light conditions, such as glare from the sun or the headlights of another vehicle
- Damage to the rear of the vehicle
- Extreme high temperatures or extreme temperature changes

BLANK

Section 4

Engine/Propulsion

12 V Starting and Charging 4-3
  Schematic and Routing Diagrams 4-3
    Starting and Charging Schematics 4-4
  Description and Operation 4-11
    Charging System Description and Operation . . . 4-11
    Electrical Power Management Description and Operation (Gasoline) 4-14
    Electrical Power Management Description and Operation (Diesel) 4-15
    Starting System Description and Operation 4-17

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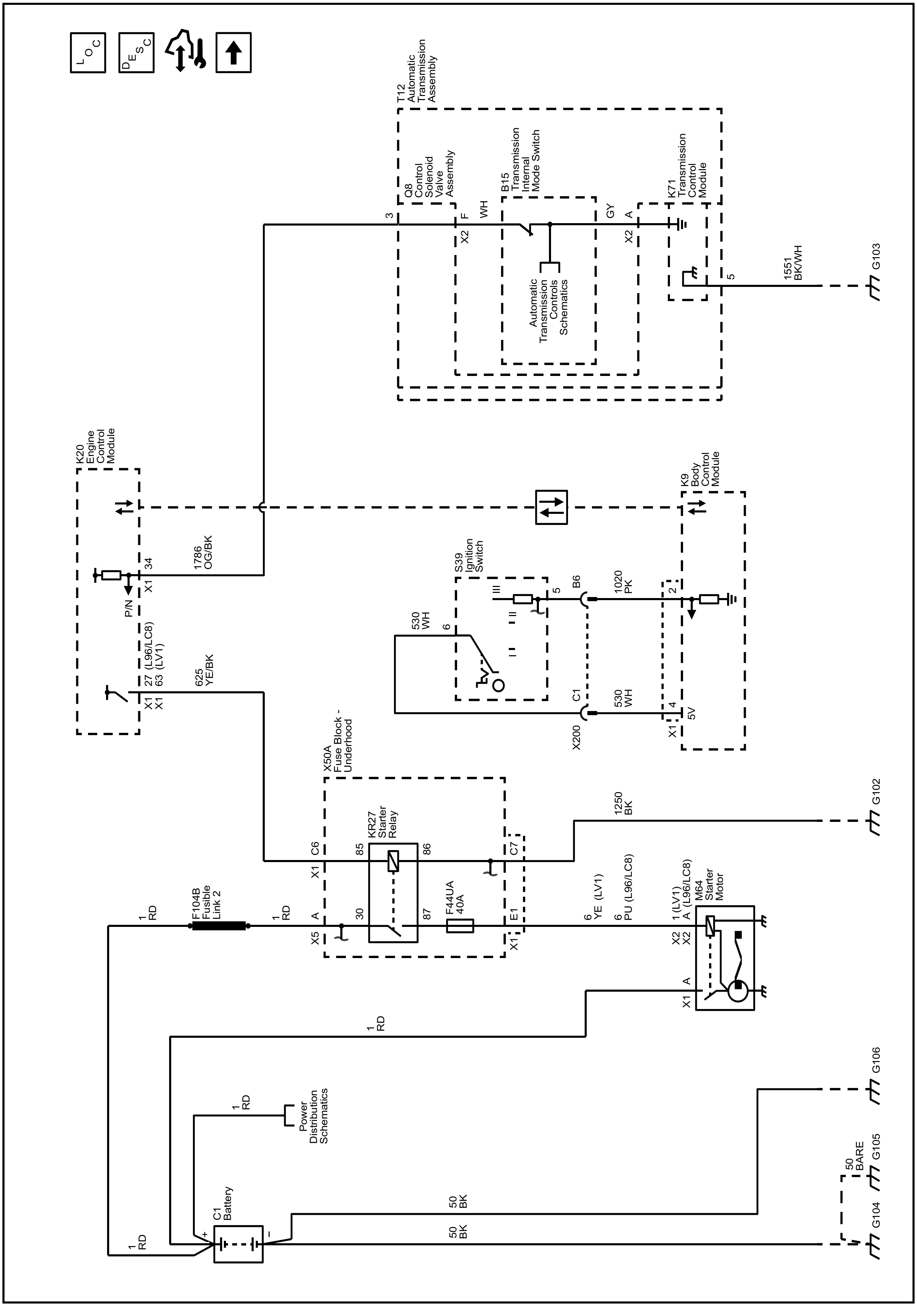
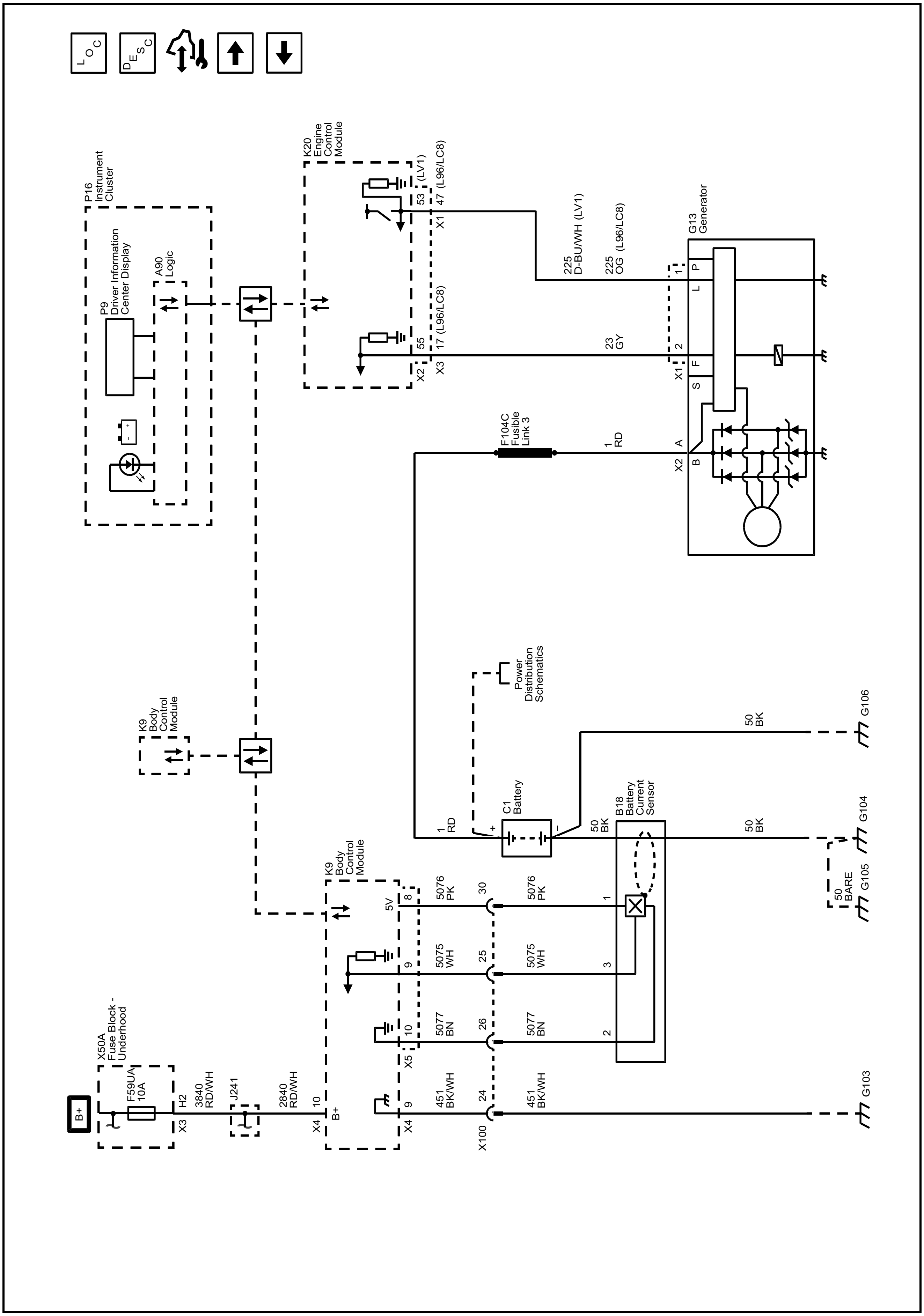
12 V Starting and Charging

Schematic and Routing Diagrams

Starting and Charging Schematics (Starting System (Gas with One Battery))


L O C
D E S C
4939073
K20 Engine Control Module
X1 34
1786 OG/BK
P/N
X1 27 (L96/LC8)
X1 63 (LV1)
625 YE/BK
T12 Automatic Transmission Assembly
Q8 Control Solenoid Valve Assembly
3
X2 F
WH
B15 Transmission Internal Mode Switch
GY
X2 A
K71 Transmission Control Module
Automatic Transmission Controls Schematics
5
1551 BK/WH
G103
K9 Body Control Module
S39 Ignition Switch
530 WH
6
III
II
I
5
B6
1020 PK
2
C1
X200
530 WH
X1 4
5V
X50A Fuse Block - Underhood
KR27 Starter Relay
X1 C6
85
86
C7
1250 BK
G102
1 RD
F104B Fusible Link 2
1 RD
X5 A
30
87
F44UA 40A
X1 E1
6 YE (LV1)
6 PU (L96/LC8)
X2 1 (LV1)
X2 A (L96/LC8)
M64 Starter Motor
X1 A
1 RD
1 RD
Power Distribution Schematics
G106
+
C1 Battery
-
1 RD
50 BK
50 BK
50 BARE
G105
G104

Starting and Charging Schematics (Charging System (Gas with One Battery))


4939081
L O C
D E S C
P16
Instrument
Cluster
P9
Driver Information
Center Display
A90
Logic
K20
Engine
Control
Module
53 (LV1)
X1 47 (L96/LC8)
55
X2
X3 17 (L96/LC8)
225
D-BU/WH (LV1)
225
OG (L96/LC8)
23
GY
G13
Generator
X1
1
2
P
L
F
S
X2
A
B
F104C
Fusible
Link 3
1
RD
Power
Distribution
Schematics
K9
Body
Control
Module
C1
Battery
+
–
50
BK
B18
Battery
Current
Sensor
G106
G104
50
BARE
G105
G103
B+
X50A
Fuse Block -
Underhood
F59UA
10A
X3
H2
3840
RD/WH
J241
2840
RD/WH
X4
10
B+
5V
8
9
10
X5
9
X4
5076
PK
5075
WH
5077
BN
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BK/WH
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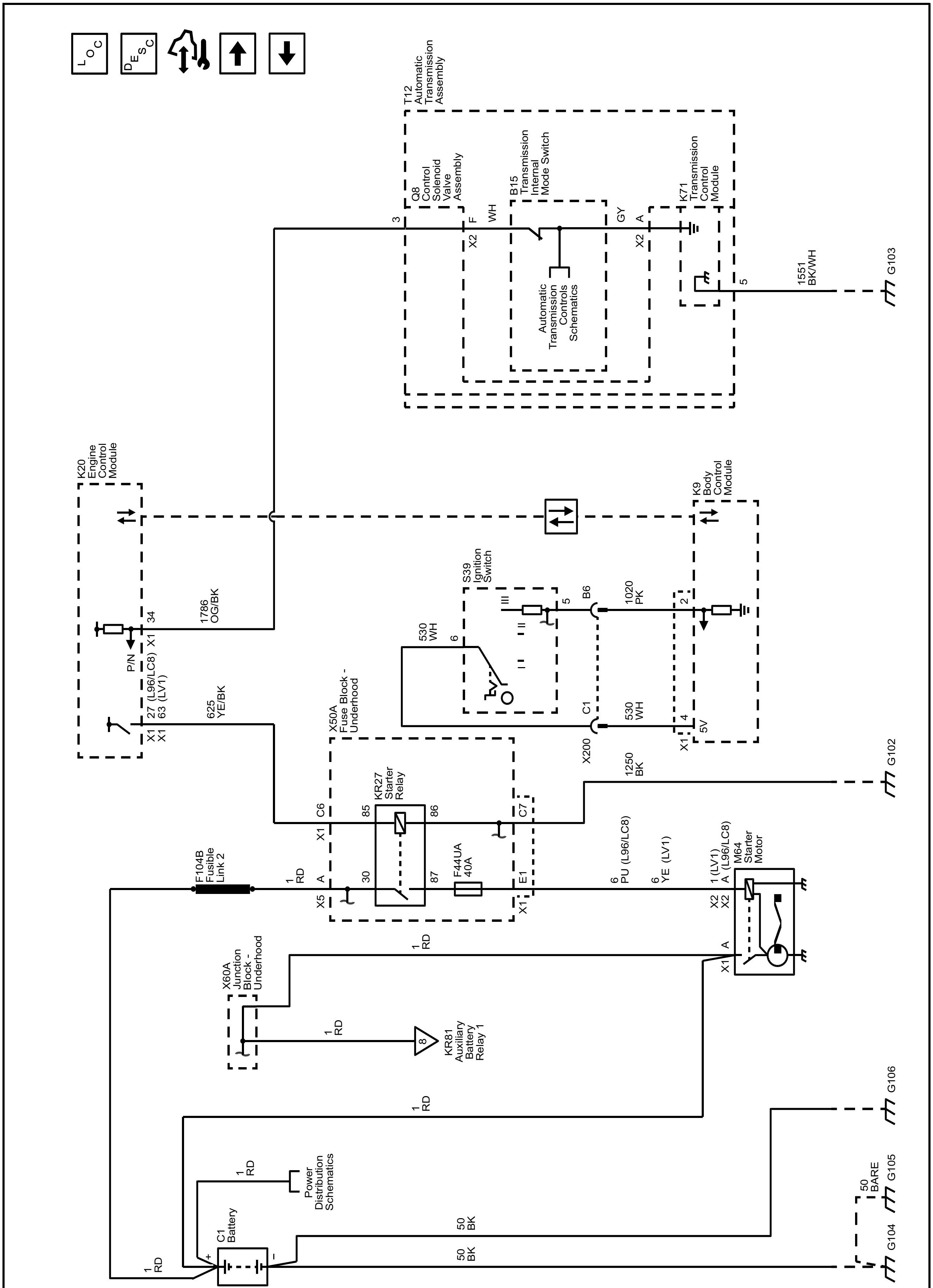
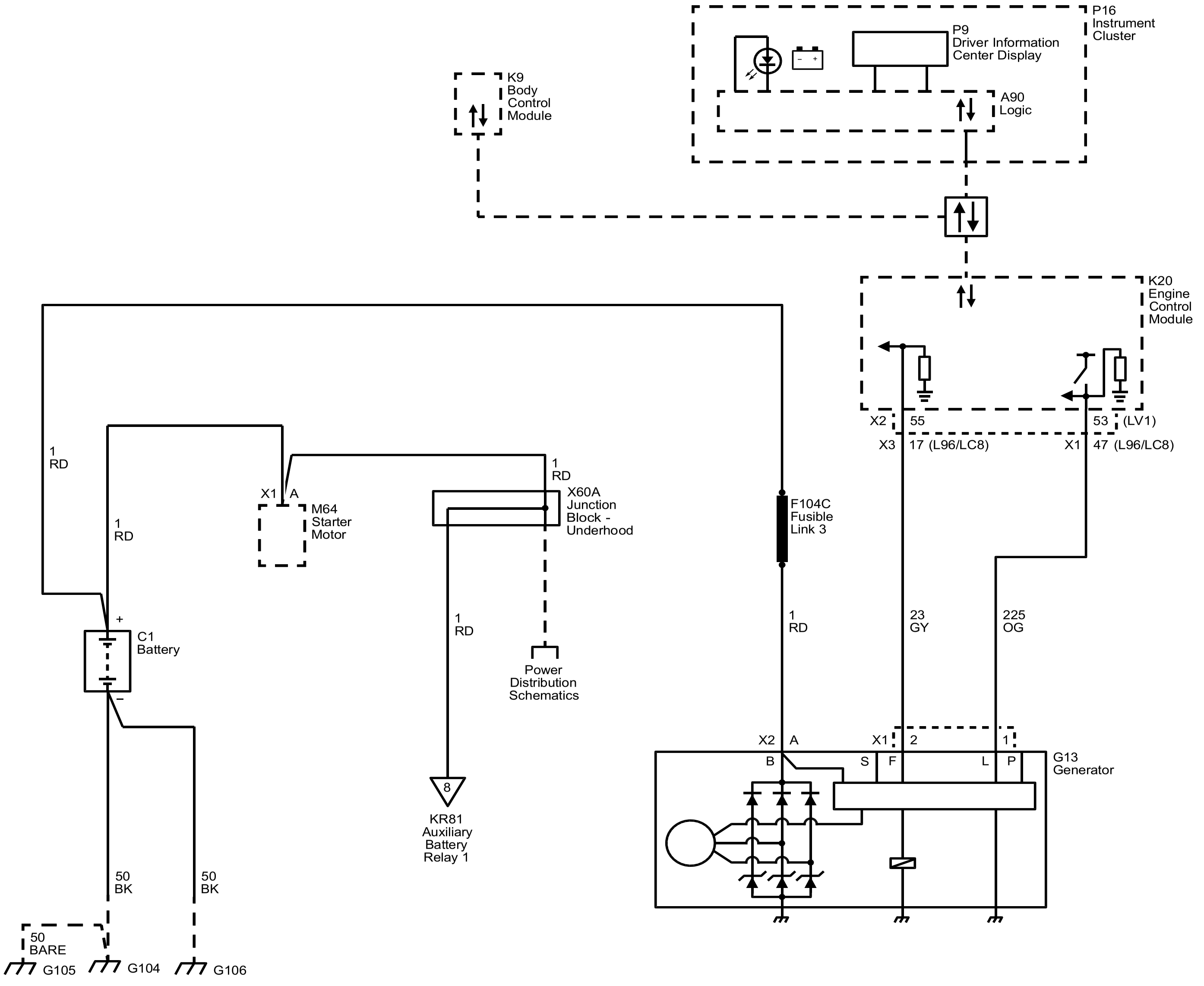
25
26
24
X100
1
3
2

Starting and Charging Schematics (Starting System (Gas with Two Batteries))

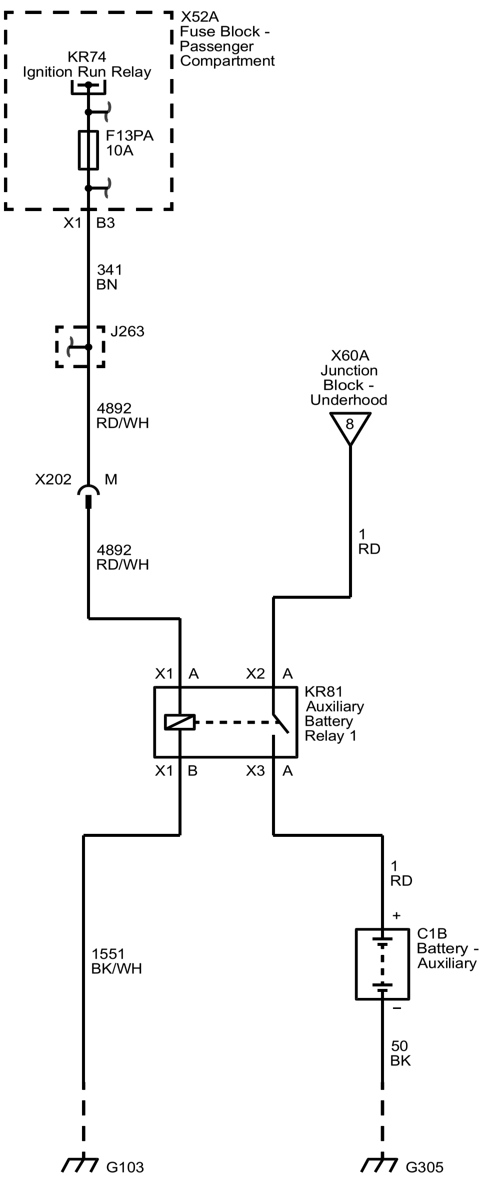

4939088
T12 Automatic Transmission Assembly
Q8 Control Solenoid Valve Assembly
B15 Transmission Internal Mode Switch
K71 Transmission Control Module
Automatic Transmission Controls Schematics
3
X2 F
WH
GY
X2 A
5
1551 BK/WH
G103
K20 Engine Control Module
K9 Body Control Module
X1 34
1786 OG/BK
P/N
X1 27 (L96/LC8)
X1 63 (LV1)
625 YE/BK
S39 Ignition Switch
530 WH
6
III
II
I
5
B6
1020 PK
2
C1
530 WH
4
X1
5V
X200
X50A Fuse Block - Underhood
KR27 Starter Relay
85
86
30
87
X1 C6
C7
F44UA 40A
E1
X1
X5 A
1250 BK
G102
F104B Fusible Link 2
1 RD
6 PU (L96/LC8)
6 YE (LV1)
1 (LV1)
A (L96/LC8)
X2
X2
M64 Starter Motor
X1 A
X60A Junction Block - Underhood
1 RD
1 RD
8
KR81 Auxiliary Battery Relay 1
1 RD
G106
1 RD
Power Distribution Schematics
C1 Battery
+
-
1 RD
50 BK
50 BK
50 BARE
G105
G104

Starting and Charging Schematics (Charging System (Gas with Two Batteries))


P16
Instrument
Cluster
P9
Driver Information
Center Display
A90
Logic
K9
Body
Control
Module
K20
Engine
Control
Module
X2 55
53 (LV1)
X3 17 (L96/LC8)
X1 47 (L96/LC8)
1
RD
1
RD
X1 A
M64
Starter
Motor
1
RD
X60A
Junction
Block -
Underhood
F104C
Fusible
Link 3
+
C1
Battery
−
1
RD
Power
Distribution
Schematics
1
RD
23
GY
225
OG
X2 A
X1 2
1
B
S F
L P
G13
Generator
8
KR81
Auxiliary
Battery
Relay 1
50
BK
50
BK
50
BARE
G105
G104
G106

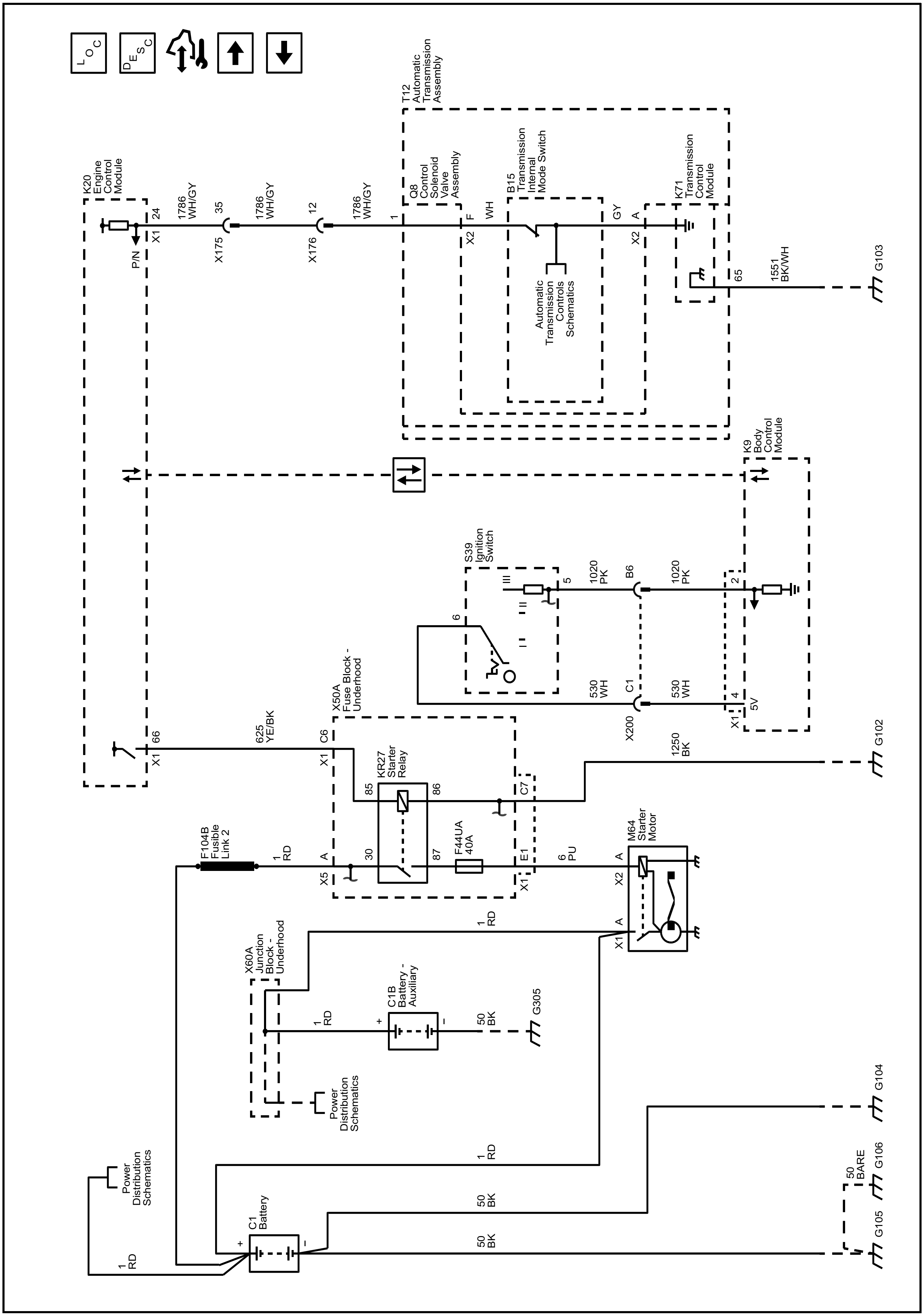
4939121

Starting and Charging Schematics (Auxiliary Battery Relay and Auxiliary Battery (Gas with Two Batteries))


X52A
Fuse Block -
Passenger
Compartment
KR74
Ignition Run Relay
F13PA
10A
X1 B3
341
BN
J263
4892
RD/WH
X202 M
4892
RD/WH
X60A
Junction
Block -
Underhood
8
1
RD
X1 A
X2 A
KR81
Auxiliary
Battery
Relay 1
X1 B
X3 A
1
RD
+
C1B
Battery -
Auxiliary
–
50
BK
1551
BK/WH
G103
G305

4939147

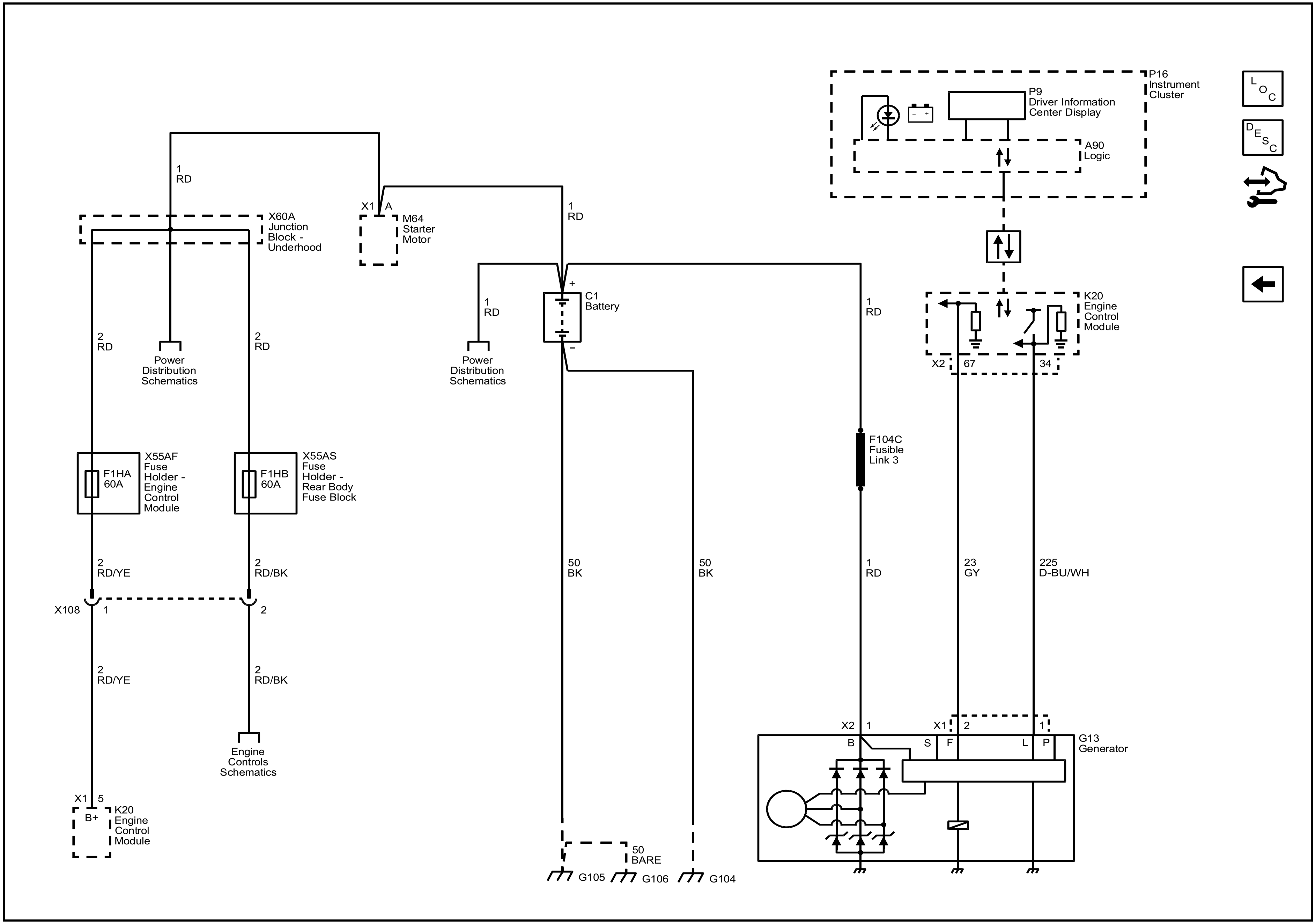
Starting and Charging Schematics (Starting System (Diesel))



L O C
D E S C
K20 Engine Control Module
X1 24
P/N
1786 WH/GY
35 X175
12 X176
1786 WH/GY
1786 WH/GY
1
T12 Automatic Transmission Assembly
Q8 Control Solenoid Valve Assembly
X2 F
WH
B15 Transmission Internal Mode Switch
Automatic Transmission Controls Schematics
GY
X2 A
K71 Transmission Control Module
65
1551 BK/WH
G103
K9 Body Control Module
S39 Ignition Switch
III II I
6
5
1020 PK
B6
1020 PK
2
530 WH
C1
X200
530 WH
4
X1 5V
X50A Fuse Block - Underhood
X1 66
625 YE/BK
X1 C6
KR27 Starter Relay
85 86
C7
1250 BK
G102
F104B Fusible Link 2
1 RD
X5 A
30 87
F44UA 40A
X1 E1
6 PU
X2 A
M64 Starter Motor
1 RD
X1 A
X60A Junction Block - Underhood
1 RD
C1B Battery - Auxiliary
+ −
50 BK
G305
Power Distribution Schematics
G104
1 RD
50 BARE
G106
Power Distribution Schematics
C1 Battery
+ −
50 BK
50 BK
G105
1 RD

4939158

Starting and Charging Schematics (Charging System (Diesel))


L O C
D E S C
P16 Instrument Cluster
P9 Driver Information Center Display
A90 Logic
K20 Engine Control Module
X2
67
34
X60A Junction Block - Underhood
X1
A
M64 Starter Motor
1 RD
2 RD
Power Distribution Schematics
C1 Battery
+
–
F104C Fusible Link 3
X55AF Fuse Holder - Engine Control Module
F1HA 60A
X55AS Fuse Holder - Rear Body Fuse Block
F1HB 60A
2 RD/YE
2 RD/BK
50 BK
23 GY
225 D-BU/WH
X108
1
2
Engine Controls Schematics
X1
5
B+
K20 Engine Control Module
50 BARE
G105
G106
G104
X2
1
X1
2
1
B
S
F
L
P
G13 Generator
4939168

Description and Operation

Charging System Description and Operation

Electrical Power Management Overview

The electrical power management system is designed to monitor and control the charging system and send diagnostic messages to alert the driver of possible problems with the battery and generator. This electrical power management system primarily utilizes existing on-board computer capability to maximize the effectiveness of the generator, to manage the load, improve battery state-of-charge and life, and minimize the system's impact on fuel economy. The electrical power management system performs 3 functions:

- Monitor the battery voltage and estimate the battery condition
- Take corrective actions by boosting idle speeds, and adjusting the regulated voltage
- Perform diagnostics and driver notification

The battery condition is estimated during ignition/vehicle off and during ignition/vehicle on. During ignition/vehicle off the state-of-charge of the battery is determined by measuring the open-circuit voltage. The state-of-charge is a function of the acid concentration and the internal resistance of the battery, and is estimated by reading the battery open circuit voltage when the battery has been at rest for several hours.

Any time the ignition/vehicle is on, the vehicle algorithm continuously estimates battery state-of-charge based on adjusted net amp hours, battery capacity, initial state-of-charge, and calculated temperature.

While the engine is running, the battery degree of discharge is primarily determined by the integrated battery current sensor, to obtain net amp hours.

In addition, the electrical power management function is designed to perform regulated voltage control to improve battery state-of-charge, battery life, and fuel economy. This is accomplished by using knowledge of the battery state-of-charge and temperature to set the charging voltage to an optimum battery voltage level for recharging without detriment to battery life.

Charging System Components

Generator

The engine drive belt drives the generator. When the rotor is spun, it induces an alternating current (AC) into the stator windings. The AC voltage is then sent through a series of diodes for rectification. The rectified voltage has been converted into a direct current (DC) for use by the vehicles electrical system to maintain electrical loads and the battery charge. The voltage regulator integral to the generator controls the output of the generator; It is not serviceable. The voltage regulator controls the amount of current provided to the rotor. If the generator has field control circuit fault, the generator defaults to an output voltage of 13.8 V.

The generator is serviced as a complete assembly. If there is a diagnosed fault in the generator, it must be replaced as an assembly.

Generator Pulley

The pulley drives the Generator via the engine drive belt. There are 2 types of pulleys:

1. Conventional solid Pulley which is bolted to the Generator stator shaft. This Pulley can be serviced separately.

2. One Way Clutch Pulley or Overrunning Alternator Decoupler Pulley allows the Generator to spin freely when the engine rapidly slows down on sudden deceleration. This part is not serviceable and the Generator needs to be replaced as an assembly.

Body Control Module (BCM)

The BCM communicates with the Engine Control Module (ECM) and the instrument cluster for electrical power management operation. The BCM determines the output of the generator and sends the information to the ECM for control of the generator turn on signal circuit. It monitors the generator field duty cycle signal circuit information sent from the ECM for control of the generator. It monitors the battery current sensor, the battery positive voltage circuit, and estimates battery temperature to determine battery state of charge. The BCM also performs idle boost.

Battery Current Sensor (if applicable)

The Battery Current Sensor is a serviceable component that is connected to the negative battery cable at the battery. The battery current sensor is a 3-wire hall effect current sensor. The battery current sensor monitors the battery current. It directly inputs to the BCM. It creates a 5 volt Pulse Width Modulation (PWM) signal of 128 Hz with a duty cycle of 0–100%. Normal duty cycle is between 5–95%. Between 0–5% and 95–100% are for diagnostic purposes.

Battery Sensor Module (if applicable)

The BCM monitors the Battery Sensor Module for battery state of current, state of health, and battery charge via serial data. If the battery is determined to be in poor state of health or having a low state of charge, the BCM will not allow the ECM to perform an auto-stop.

Engine Control Module (ECM)

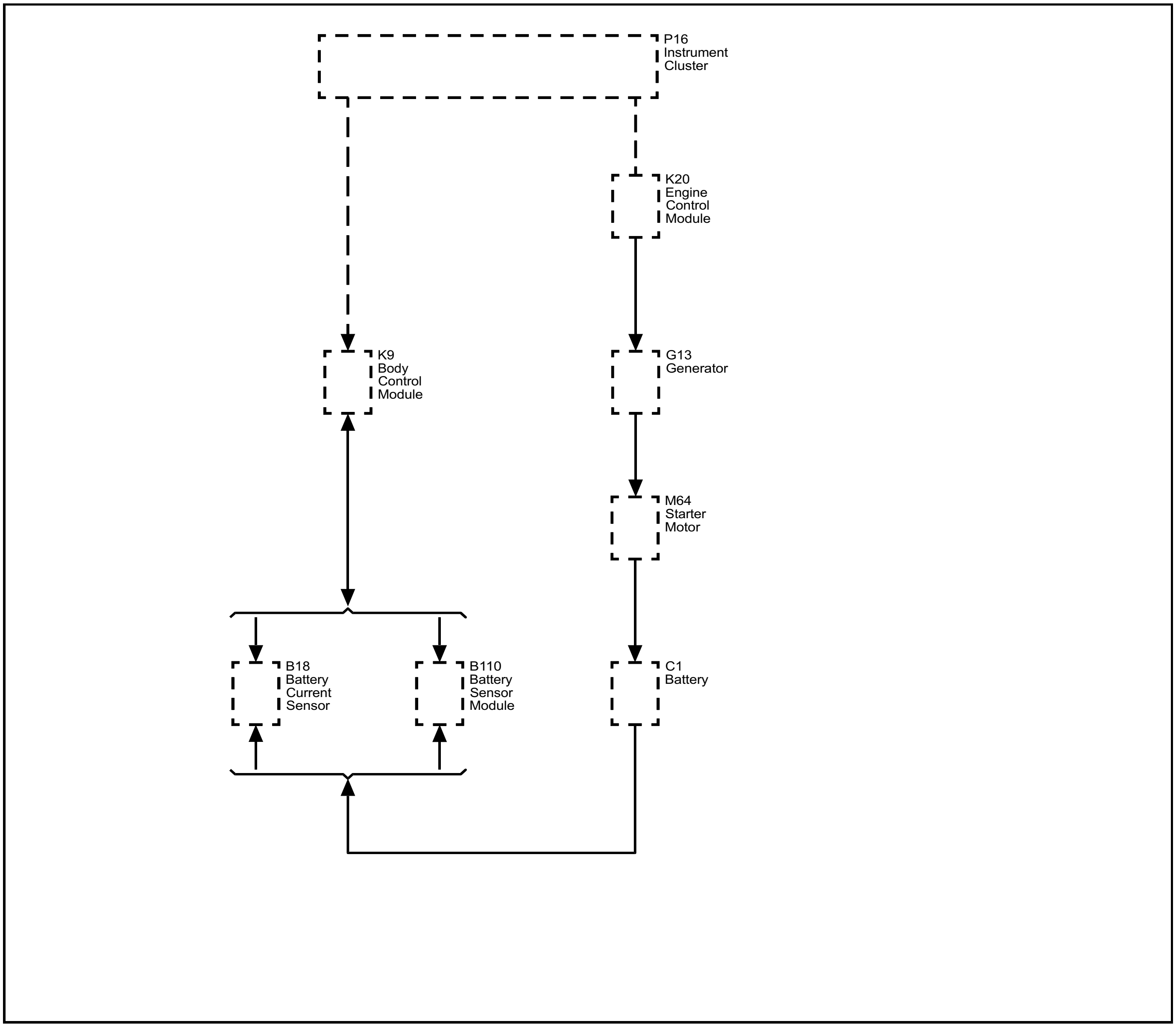
When the engine is running, the generator turn-on signal is sent to the generator from the ECM, turning on the regulator. The generator's voltage regulator controls current to the rotor, thereby controlling the output voltage. The rotor current is proportional to the electrical pulse width supplied by the regulator. When the engine is started, the regulator senses generator rotation by detecting AC voltage at the stator through an internal wire. Once the engine is running, the regulator varies the field current by controlling the pulse width. This regulates the generator output voltage for proper battery charging and electrical system operation. The generator field duty terminal is connected internally to the voltage regulator and externally to the ECM. When the voltage regulator detects a charging system problem, it grounds this circuit to signal the ECM that a problem exists. The ECM monitors the generator field duty cycle signal circuit, and receives control decisions based on information from the BCM.

Instrument Cluster

As a means of displaying the charging system functions, some vehicles may be equipped with a voltmeter gauge on the instrument cluster and/or a system voltage display in the driver information center. These will indicate the current vehicle system voltage.

The instrument cluster also provides customer notification if there is a concern with the charging system. There are two means of notification: a charge indicator on the instrument cluster and/or a service system message displayed on the Driver Information Center (DIC) if equipped.

Charging System Block Diagram


P16 Instrument Cluster
K20 Engine Control Module
K9 Body Control Module
G13 Generator
M64 Starter Motor
B18 Battery Current Sensor
B110 Battery Sensor Module
C1 Battery
3603724

Charging System Operation

The purpose of the charging system is to maintain the battery charge and vehicle loads. There are 6 modes of operation and they include:

- Battery Sulfation Mode
- Charge Mode
- Fuel Economy Mode
- Head lamp Mode
- Start Up Mode
- Voltage Reduction Mode

The ECM Controls the Generator through the generator turn–on signal circuit, also known as the Generator L-terminal. The ECM monitors the generator performance though the Generator field duty cycle signal circuit, also known as the generator F-terminal.

The Generator turn–on signal (Generator L-terminal) is a Pulse Width Modulation (PWM) signal of 128 Hz with a duty cycle of 0–100%. Normal duty cycle is between 5–95%. 0–5% and 95–100% are for diagnostic purposes, with 0–5% monitoring for an open circuit and 95–100% monitoring for a short to ground at a fixed 13.8 V. The following table shows the commanded duty cycle and output voltage of the Generator:

Commanded Duty Cycle	Generator Output Voltage (+/- .25 V)
0–5%	13.8 V
10%	11 V
20%	11.56 V
30%	12.13 V
40%	12.69 V
50%	13.25 V
60%	13.81 V
70%	14.38 V
80%	14.94 V
90%	15.5 V
95–100%	13.8 V

The Generator provides a PWM feedback signal of the Generator voltage output through the Generator field duty cycle signal circuit to the ECM. This information is sent to the Body Control Module (BCM). The Generator field duty cycle signal (Generator F-terminal) is a PWM signal of 60–460 Hz with a duty cycle of 0–100%. Normal duty cycle is between 5–100%. 0–5% is reserved for diagnostic purposes.

As the charging systems works to maintain the battery charge and manage vehicle electrical loads, it is normal for the voltmeter gauge on the instrument cluster or the system voltage displayed in the DIC to fluctuate or change. This does not indicate a malfunction. Depending on the battery state of charge and the vehicle electrical load, these values may be anywhere from 12.5 V to 15.5 V.

Charging System Modes

Battery Sulfation Mode

The BCM will enter this mode when the interpreted Generator output voltage is less than 13.2 V for 45 minutes. When this condition exists the BCM will enter Charge Mode for 2–3 minutes. The BCM will then determine which mode to enter depending on voltage requirements.

Charge Mode

The BCM will enter Charge Mode when ever one of the following conditions are met:

- Windshield wipers are ON for more than 3 s.
- Climate Control Voltage Boost Mode Request is true, as sensed by the HVAC control module via serial data. High speed cooling fan, rear defogger, and HVAC high speed blower operation can cause the BCM to enter the Charge Mode.
- The estimated battery temperature is less than 0° C (32°F).
- Battery State of Charge is less than 80%.
- Vehicle speed is greater than 145 km/h (90 mph)
- A current sensor malfunction exists.
- System voltage is determined to be below 12.56 V

When any one of these conditions is met, the system will set targeted generator output voltage to a charging voltage between 13.9–15.5 V, depending on the battery state of charge and estimated battery temperature.

Fuel Economy Mode

The BCM will enter Fuel Economy Mode when the estimated battery temperature is at least 0°C (32°F) but less than or equal to 80°C (176°F), the calculated battery current is less than 15 A and greater than −8 A, and the battery state-of-charge is greater than or equal to 80%. Its targeted generator output voltage is the open circuit voltage of the battery and can be between 12.5–13.1 V. When fuel economy mode is active, the generator is not charging, only maintaining open circuit battery voltage. The BCM will exit this mode and enter Charge Mode when any of the conditions described above are present.

Headlamp Mode

The BCM will enter Headlamp Mode when ever the head lamps are ON (high or low beams). Voltage will be regulated between 13.9–14.5 V.

Start Up Mode

When the engine is started the BCM sets a targeted generator output voltage of 14.5 V for 30 s.

Tow/Haul Mode (if applicable)

Pressing the Tow/Haul Mode button located on the center stack, the vehicle system voltage is raised and the remote (non-vehicle) battery will be charged. Having the headlamps on will raise the system voltage and if the Tow/Haul button is applied it will not serve any purpose. The voltage is regulated between 13.9-14.5 V.

Instrument Cluster Operation

Charge Indicator Operation

The instrument cluster illuminates the charge indicator and displays a warning message in the driver information center if equipped, when the one or more of the following occurs:

- The ECM detects that the generator output is less than 11 V or greater than 16 V. The instrument cluster receives a serial data message from the ECM requesting illumination.
- The instrument cluster determines that the system voltage is less than 11 V or greater than 16 V for more than 30 s. The instrument cluster receives a serial data message from the BCM indicating there is a system voltage range concern.
- The instrument cluster performs the displays test at the start of each ignition cycle. The indicator illuminates for approximately 3 s.

Driver Information Center Message: BATTERY NOT CHARGING SERVICE CHARGING SYSTEM or SERVICE BATTERY CHARGING SYSTEM

The BCM and the ECM will send a serial data message to the driver information center for the BATTERY NOT CHARGING SERVICE CHARGING SYSTEM or SERVICE BATTERY CHARGING SYSTEM message to be displayed. It is displayed when a charging system DTC is a current DTC. The message is turned off when the conditions for clearing the DTC have been met.

Voltmeter Gauge and/or System Voltage Display (if equipped)

As a means of displaying the charging system functions, some vehicles may be equipped with a voltmeter gauge on the instrument cluster and/or a system voltage display in the driver information center. These will indicate the current vehicle system voltage.

As the charging systems works to maintain the battery charge and manage vehicle electrical loads, it is normal for the voltmeter gauge on the instrument cluster or the system voltage display in the driver information center to fluctuate or change. This does not indicate a malfunction. Depending on the battery state of charge and the vehicle electrical load, these values may be anywhere from 12.5 V to 15.5 V.

Electrical Power Management Description and Operation (Gasoline)

The electrical power management is used to monitor and control the charging system and alert the driver of possible problems within the charging system. The electrical power management system makes the most efficient use of the generator output, improves the battery state-of-charge, extends battery life, and manages system electrical loads.

The load shed operation is a means of reducing electrical loads during a low voltage or low battery state-of-charge condition.

The idle boost operation is a means of improving generator performance during a low voltage or low battery state-of-charge condition.

Each electrical power management function, either idle boost or load shed, is discrete. No two functions are active at the same time. Idle boost is activated in incremental steps, idle boost 1 must be active before idle boost 2 can be active. The criteria used by the body control module (BCM) to regulate electrical power management are outlined below:

Function	Battery Temperature Calculation	Battery Voltage Calculation	Amp-Hour Calculation	Action Taken
Idle Boost 1 Start	Less Than −15°C (5°F)	Less Than 13 V	—	First level Idle boost requested
Idle Boost 1 Start	—	—	Battery has a net loss greater than 0.6 AH	First level Idle boost requested
Idle Boost 1 Start	—	Less Than 10.9 V	—	First level Idle boost requested
Idle Boost 1 End	Greater Than −15°C (5°F)	Greater Than −12 V	Battery has a net loss less than 0.2 AH	First level Idle boost request cancelled
Load Shed 1 Start	—	—	Battery has a net loss of 4 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 20% of their cycle
Load Shed 1 Start	—	Less Than 10.9 V	—	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 20% of their cycle
Load Shed 1 End	—	Greater Than 12 V	Battery has a net loss of less than 2 AH	Clear Load Shed 1
Idle Boost 2 Start	—	—	Battery has a net loss greater than 1.6 AH	Second level Idle boost requested

Function	Battery Temperature Calculation	Battery Voltage Calculation	Amp-Hour Calculation	Action Taken
Idle Boost 2 Start	—	Less Than 10.9 V	—	Second level Idle boost requested
Idle Boost 2 End	—	Greater Than 12 V	Battery has a net loss less than 0.8 AH	Second level Idle boost request cancelled
Idle Boost 3 Start	—	—	Battery has a net loss of 10.0 AH	Third level Idle boost requested
Idle Boost 3 Start	—	Less Than 10.9 V	—	Third level Idle boost requested
Idle Boost 3 End	—	Greater Than 12 V	Battery has a net loss of less than 6.0 AH	Third level Idle boost request cancelled
Load Shed 2 Start	—	Less Than 10.9 V	Battery has a net loss greater than 12 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 Start	—	Less Than 10.9 V	—	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 End	—	Greater Than 12.6 V	Battery has a net loss of less than 10.5 AH	Clear Load Shed 2
Load Shed 3 Start	—	Less Than 11.9 V	Battery has a net loss greater than 20 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 100% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 3 End	—	Greater Than 12.6 V	Battery has a net loss of less than 15 AH	Clear Load Shed 3

Electrical Power Management Description and Operation (Diesel)

The electrical power management is used to monitor and control the charging system and alert the driver of possible problems within the charging system. The electrical power management system makes the most efficient use of the generator output, improves the battery state-of-charge, extends battery life, and manages system electrical loads.

The load shed operation is a means of reducing electrical loads during a low voltage or low battery state-of-charge condition.

The idle boost operation is a means of improving generator performance during a low voltage or low battery state-of-charge condition. Idle boost consists of three steps: idle boost 1, idle boost 2, and idle boost 3 (approximately 725, 850, and 850 rpm respectively). Idle boost is activated in incremental steps, idle boost 1 must be active before idle boost 2 can be active.

Each electrical power management function, either idle boost or load shed, is discrete. No two functions are active at the same time. The criteria used by the body control module (BCM) to regulate electrical power management are outlined below:

Function	Battery Temperature Calculation	Battery Voltage Calculation	Amp-Hour Calculation	Action Taken
Idle Boost 1 Start	Less Than −15°C (5°F)	Less Than 13 V	—	First level Idle boost requested
Idle Boost 1 Start	—	—	Battery has a net loss greater than 0.6 AH	First level Idle boost requested
Idle Boost 1 Start	—	Less Than 10.9 V	—	First level Idle boost requested
Idle Boost 1 End	Greater Than −15°C (5°F)	Greater Than −12 V	Battery has a net loss less than 0.2 AH	First level Idle boost request cancelled
Load Shed 1 Start	—	—	Battery has a net loss of 4 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 20% of their cycle
Load Shed 1 Start	—	Less Than 10.9 V	—	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 20% of their cycle
Load Shed 1 End	—	Greater Than 12 V	Battery has a net loss of less than 2 AH	Clear Load Shed 1
Idle Boost 2 Start	—	—	Battery has a net loss greater than 1.6 AH	Second level Idle boost requested
Idle Boost 2 Start	—	Less Than 10.9 V	—	Second level Idle boost requested
Idle Boost 2 End	—	Greater Than 12 V	Battery has a net loss less than 0.8 AH	Second level Idle boost request cancelled
Idle Boost 3 Start	—	—	Battery has a net loss of 10.0 AH	Third level Idle boost requested
Idle Boost 3 Start	—	Less Than 10.9 V	—	Third level Idle boost requested
Idle Boost 3 End	—	Greater Than 12 V	Battery has a net loss of less than 6.0 AH	Third level Idle boost request cancelled
Load Shed 2 Start	—	Less Than 10.9 V	Battery has a net loss greater than 12 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 Start	—	Less Than 10.9 V	—	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 50% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 2 End	—	Greater Than 12.6 V	Battery has a net loss of less than 10.5 AH	Clear Load Shed 2
Load Shed 3 Start	—	Less Than 11.9 V	Battery has a net loss greater than 20 AH	Rear Defrost, Heated Mirrors, Heated Seats cycled OFF for 100% of their cycle. The BATTERY SAVER ACTIVE message will be displayed on the DIC
Load Shed 3 End	—	Greater Than 12.6 V	Battery has a net loss of less than 15 AH	Clear Load Shed 3

Starting System Description and Operation

Starter Motor Operation (Without KL9)

The starter motors are non-repairable. They have pole pieces that are arranged around the armature. Both solenoid windings are energized. The pull-in winding circuit is completed to the ground through the starter motor. The windings work together magnetically to pull and hold in the plunger. The plunger moves the shift lever. This action causes the starter drive assembly to rotate on the armature shaft spline as it engages with the flywheel ring gear on the engine. Moving at the same time, the plunger also closes the solenoid switch contacts in the starter solenoid. Full battery voltage is applied directly to the starter motor and it cranks the engine.

As soon as the solenoid switch contacts close, current stops flowing thorough the pull-in winding because battery voltage is applied to both ends of the windings. The hold-in winding remains energized. Its magnetic field is strong enough to hold the plunger, shift lever, starter drive assembly, and solenoid switch contacts in place to continue cranking the engine. When the engine starts, pinion overrun protects the armature from excessive speed until the switch is opened.

When the crank signal is removed, the starter relay opens and battery voltage is removed from the starter solenoid S terminal. Current flows from the motor contacts through both windings to the ground at the end of the hold-in winding. However, the direction of the current flow through the pull-in winding is now opposite the direction of the current flow when the winding was first energized.

The magnetic fields of the pull-in and hold-in windings now oppose one another. This action of the windings, along with the help of the return spring, causes the starter drive assembly to disengage and the solenoid switch contacts to open simultaneously. As soon as the contacts open, the starter circuit is turned off.

Enhanced Starter Motor Operation (KL9)

The Engine Stop/Start system in GM vehicles automatically turns off the engine when the vehicle comes to a stop under certain driving conditions, and can quickly restart the engine in about 0.3 seconds when commanded to do so.

In order to smoothly restart the engine as quickly as possible while managing the greater number of engine starts, the Stop/Start system uses an enhanced starter motor that operates differently from a conventional starter motor. It has a high performance electric motor and a stronger pinion engagement mechanism than a conventional starter. It also has independent control of the pinion and motor.

The enhanced starter motor continues using the typical pinion engagement mechanism with a starter solenoid that drives the pinion gear to engage or disengage the flywheel of the engine. When engaged, the starter motor can rotate the engine flywheel and, in turn, the crankshaft.

On the enhanced starter of a Stop/Start system the operation is done in two separate functions inside the solenoid, Starter Motor and Pinion Actuator. Each function controlled individually by the ECM. There are two separate relays to control the two separate parts of the enhanced solenoid:

- KR27 Starter Motor Relay
- KR27C Starter Pinion Actuator Relay

The two individually-controlled relays allow for smooth engagement of the pinion gear into the flywheel with minimum noise and wear.

When the vehicle is coming to a stop, just before the engine stops rotating (at approximately 50 RPM) during stop/start operation, the ECM energizes the Starter Pinion Solenoid Actuator Relay to easily push the pinion gear into the flywheel gear without gear clash. (Fig. 8) When the engine stops rotating during Stop/Start operation (Auto Stop mode), the starter pinion gear is fully engaged, ready for the starter motor to become energized to quickly start the engine again.

A secondary need for the starter pinion to be driven into the flywheel gear before the engine stops rotating is to address quickly changing demands on the engine. For example, when a driver is slowing nearly to a stop — and the Stop/Start system is preparing for Auto Stop mode — but suddenly decides to release the brake and accelerate

In this situation, the engine has already stopped rotating, or nearly so. A conventional starter cannot restart the engine until the engine has completely stopped. However, with the enhanced starter, the starter pinion gear is fully engaged and ready to begin rotating the engine even before it fully stops turning. Otherwise, the engine would actually have to stop rotating before the pinion can engage smoothly to begin a restart.

To prevent a lag in engine operation, the ECM uses predictive speed matching of the flywheel gear speed and the pinion gear speed to engage the pinion gear into the flywheel gear without gear clash before the engine fully stops. By predicting how long it takes the starter motor to spin up using an algorithm, the pinion gear speed can be matched to the flywheel gear speed. The result is an almost instant restart that is possible at extremely low engine speeds.

Circuit Description

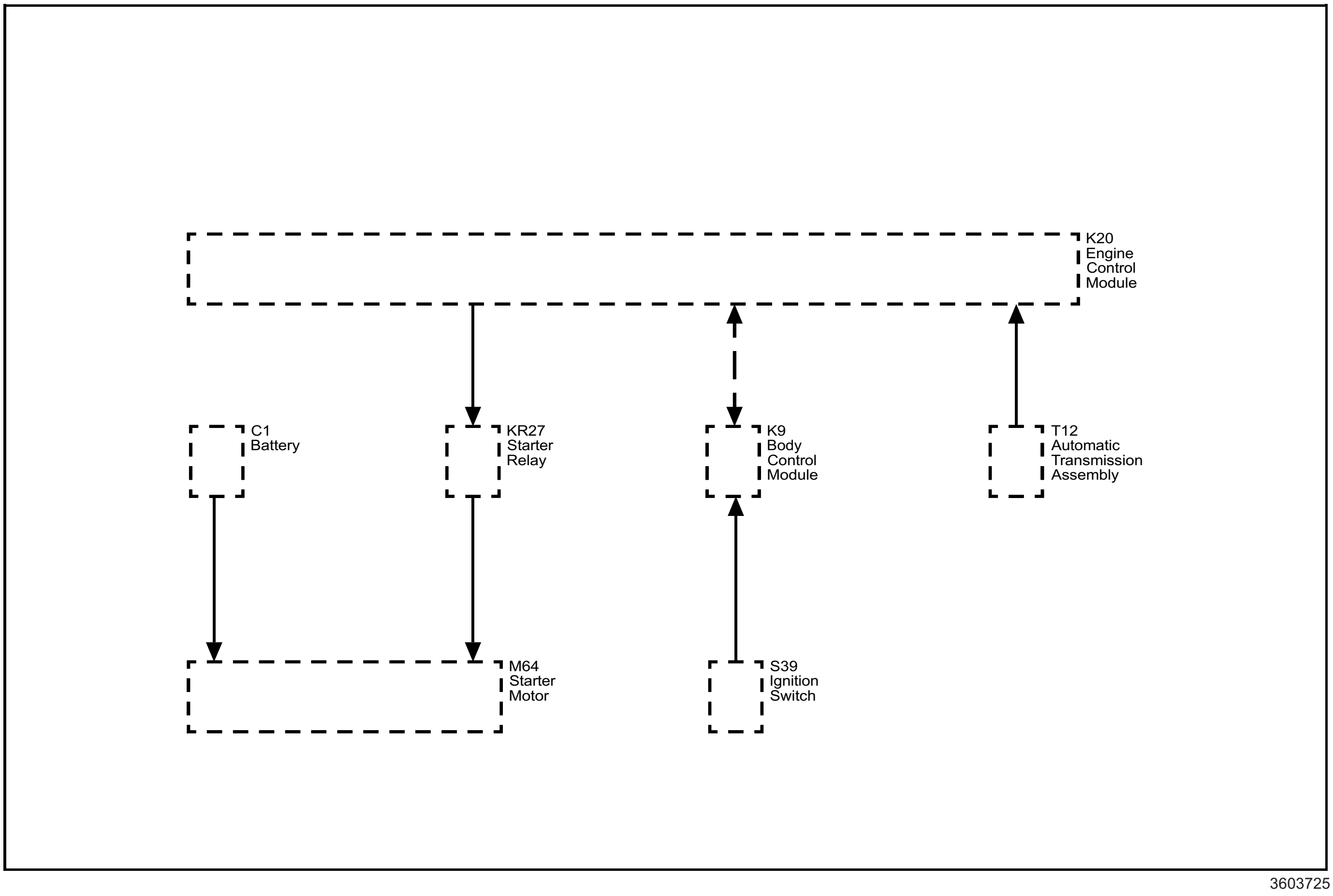
Keyless Start

When the Ignition mode switch is placed in the crank position, a discrete signal is supplied to the body control module (BCM) notifying it that the ignition is in the crank position. The BCM then sends a serial data message to the engine control module (ECM) that crank has been requested. The ECM then verifies that the clutch is fully depressed or the automatic transmission is in Park/Neutral. If it is, the ECM then supplies 12 V to the control circuit of the starter relay. When this occurs, battery positive voltage is supplied through the switch side of the crank relay to the S terminal of the starter solenoid.

Key Start

When the ignition switch is placed in the Start position, a discrete signal is supplied to the body control module (BCM) notifying it that the ignition is in the Start position. The BCM then sends a message to the engine control module (ECM) notifying it that CRANK has been requested. The ECM verifies that the transmission is in Park or Neutral. If it is, the ECM then supplies 12 V to the control circuit of the crank relay. When this occurs, battery positive voltage is supplied through the switch side of the crank relay to the S terminal of the starter solenoid.

Starting System Block Diagram


K20
Engine
Control
Module
C1
Battery
KR27
Starter
Relay
K9
Body
Control
Module
T12
Automatic
Transmission
Assembly
M64
Starter
Motor
S39
Ignition
Switch
3603725

Section 5

HVAC

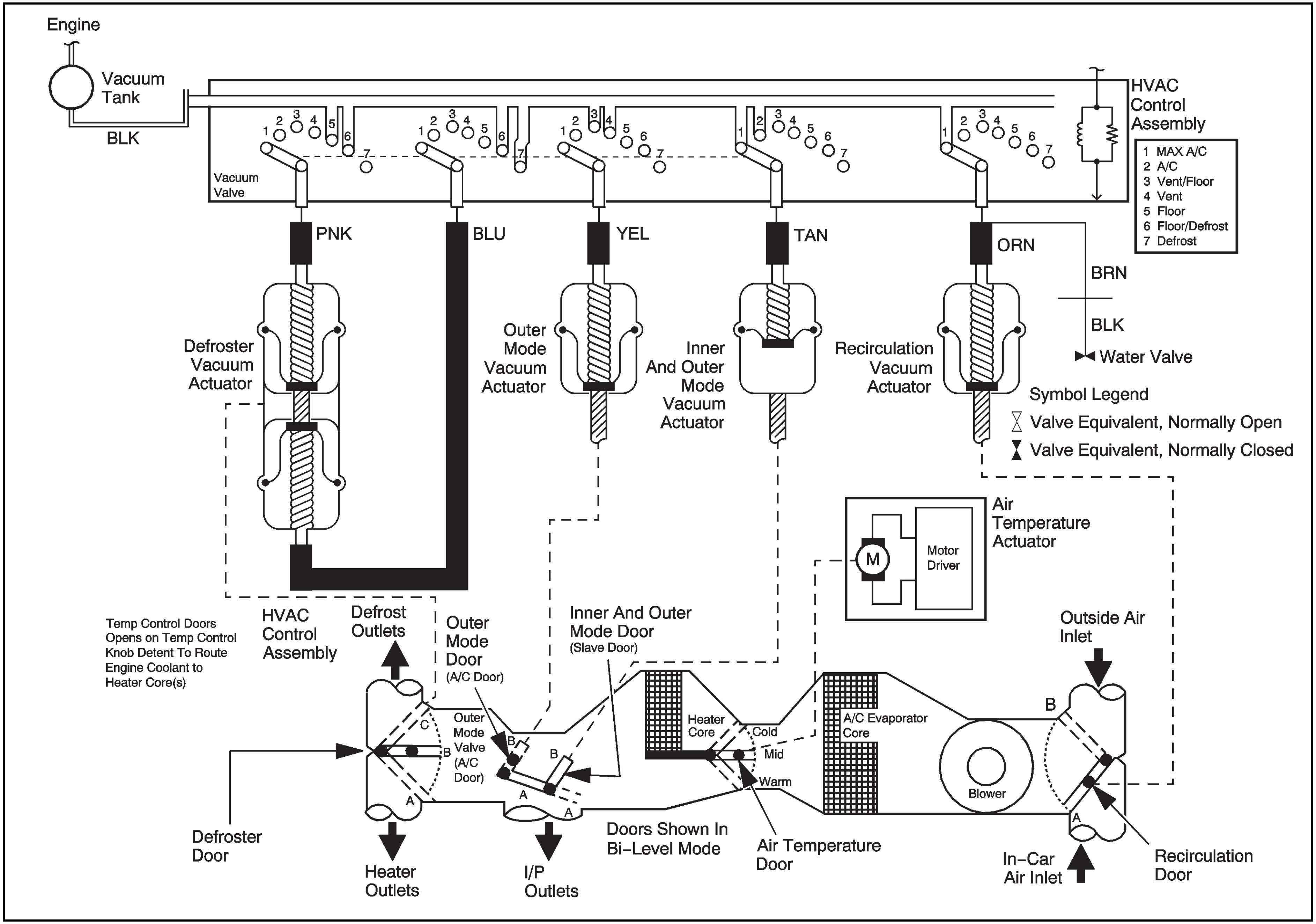
HVAC - Manual 5-3
  Schematic and Routing Diagrams 5-3
    HVAC Vacuum Schematics 5-4
    HVAC Schematics 5-5
  Description and Operation 5-14
    Air Delivery Description and Operation 5-14
    Air Temperature Description and Operation 5-15

BLANK

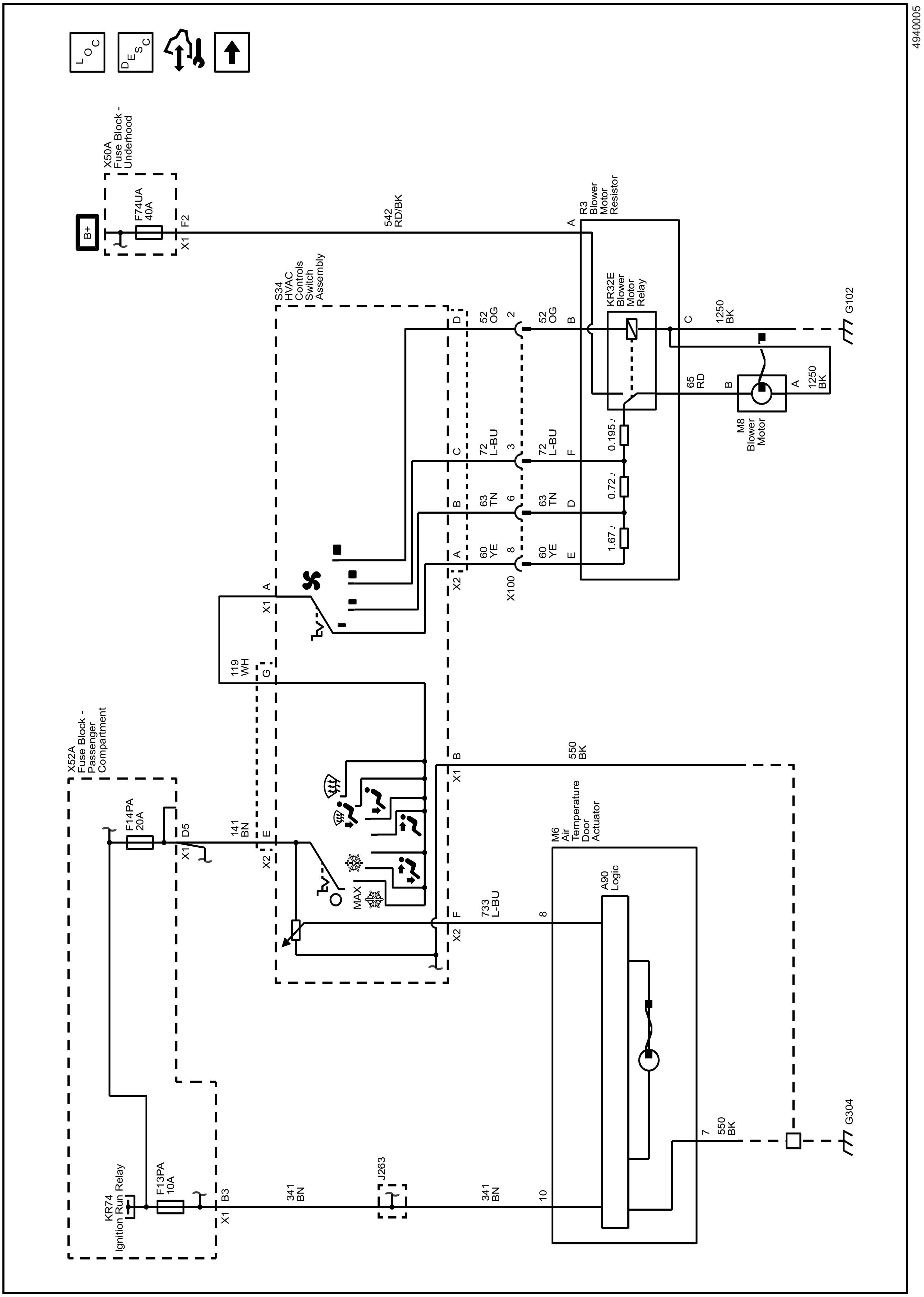
HVAC - Manual

Schematic and Routing Diagrams

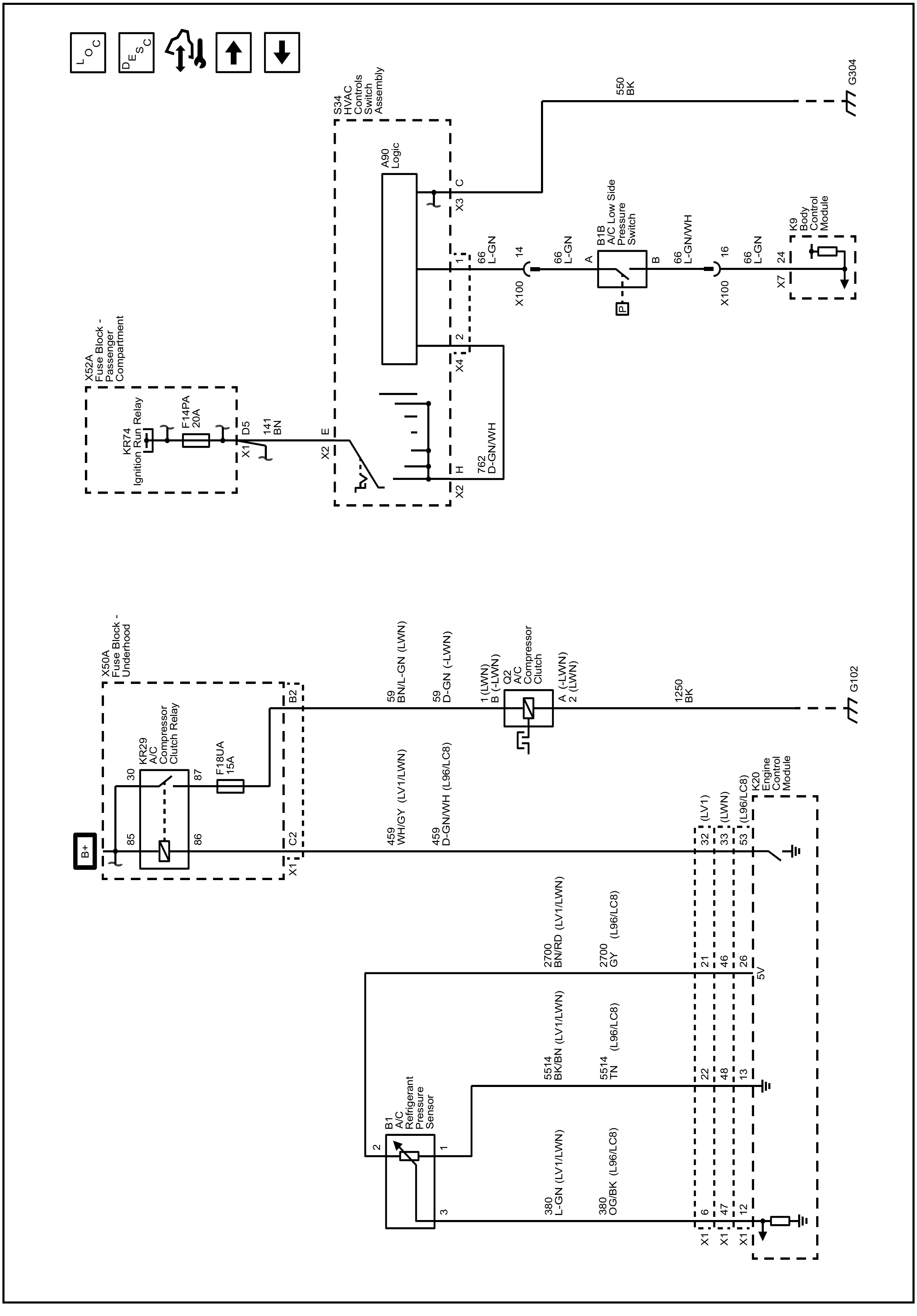
HVAC Vacuum Schematics (Vacuum System Control Schematic)


Engine
Vacuum Tank
BLK
Vacuum Valve
1 2 3 4 5 6 7
HVAC Control Assembly
1 MAX A/C
2 A/C
3 Vent/Floor
4 Vent
5 Floor
6 Floor/Defrost
7 Defrost
PNK
BLU
YEL
TAN
ORN
BRN
BLK
Water Valve
Defroster Vacuum Actuator
Outer Mode Vacuum Actuator
Inner And Outer Mode Vacuum Actuator
Recirculation Vacuum Actuator
Symbol Legend
Valve Equivalent, Normally Open
Valve Equivalent, Normally Closed
Air Temperature Actuator
M
Motor Driver
Temp Control Doors Opens on Temp Control Knob Detent To Route Engine Coolant to Heater Core(s)
HVAC Control Assembly
Defrost Outlets
Outer Mode Door (A/C Door)
Inner And Outer Mode Door (Slave Door)
Outside Air Inlet
Outer Mode Valve (A/C Door)
A B C
Heater Core
Cold
Mid
Warm
A/C Evaporator Core
Blower
B A
Defroster Door
Heater Outlets
I/P Outlets
Doors Shown In Bi-Level Mode
Air Temperature Door
In-Car Air Inlet
Recirculation Door
779618

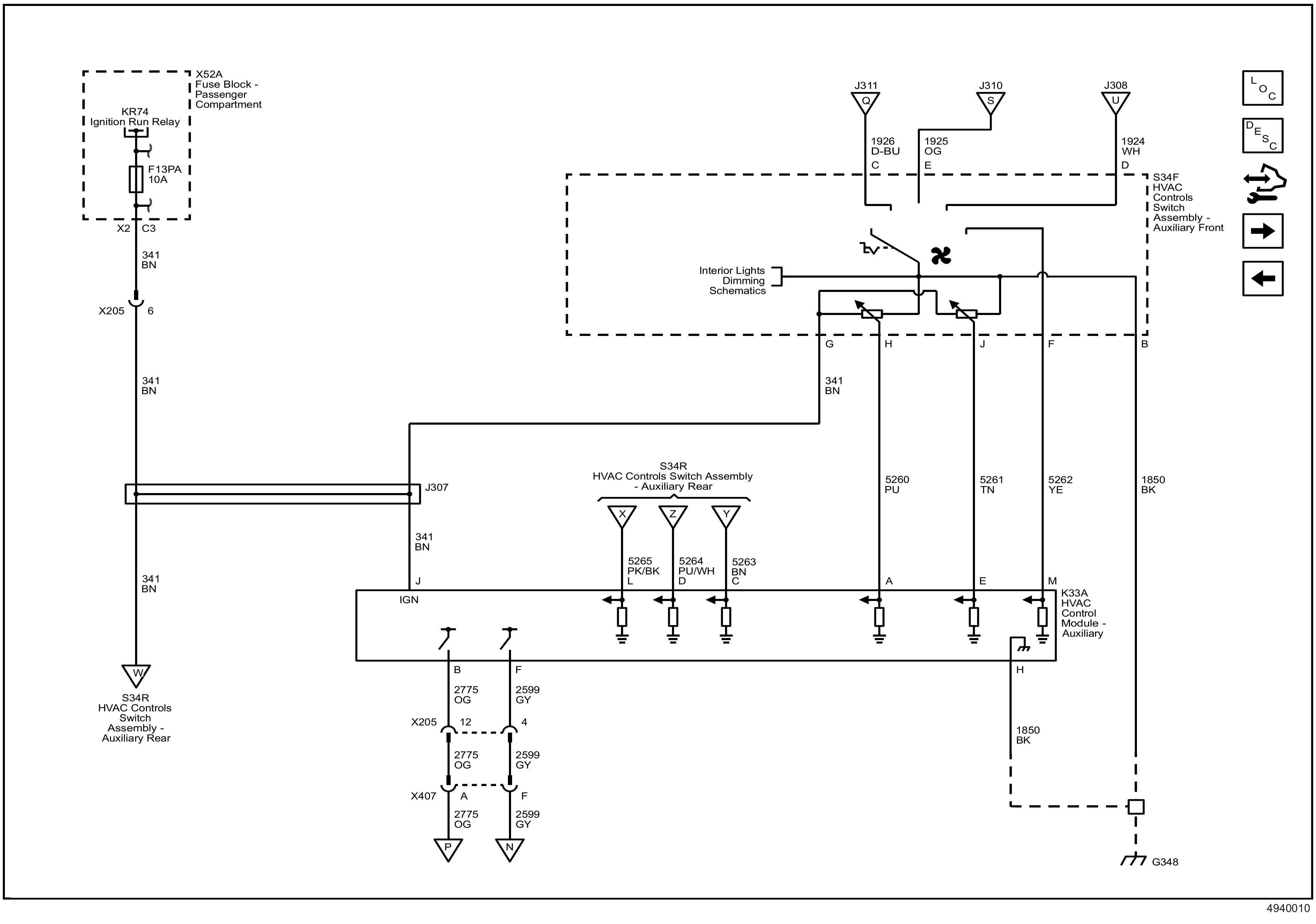
HVAC Schematics (Front Air Delivery Controls and Front Blower Motor)


4940005
LOC
DESC
B+
X50A Fuse Block - Underhood
F74UA 40A
X1 F2
542 RD/BK
R3 Blower Motor Resistor
A
S34 HVAC Controls Switch Assembly
KR32E Blower Motor Relay
52 OG
2
B
C
D
1250 BK
G102
65 RD
M8 Blower Motor
72 L-BU
3
F
63 TN
6
60 YE
8
E
X100
X2
0.195 Ω
0.72 Ω
1.67 Ω
X1 A
119 WH
G
X52A Fuse Block - Passenger Compartment
F14PA 20A
X1 D5
141 BN
X2 E
MAX
550 BK
X1 B
733 L-BU
X2 F
M6 Air Temperature Door Actuator
A90 Logic
7
G304
KR74 Ignition Run Relay
F13PA 10A
X1 B3
341 BN
J263
10

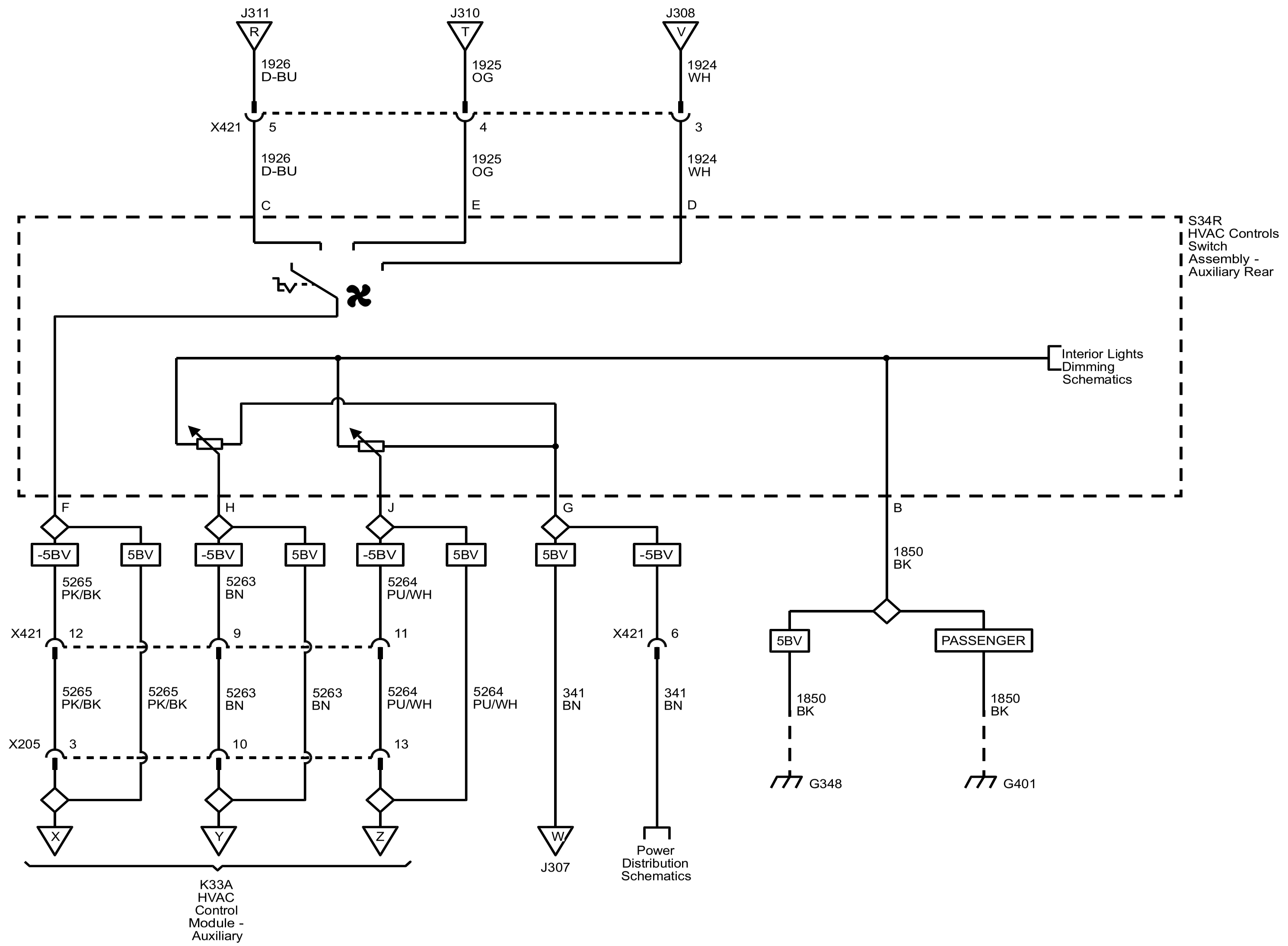
HVAC Schematics (Compressor Controls (C60))


4940008
LOC
DESC
B+
X50A Fuse Block - Underhood
KR29 A/C Compressor Clutch Relay
30
85
86
87
F18UA 15A
B2
C2
X1
X52A Fuse Block - Passenger Compartment
KR74 Ignition Run Relay
F14PA 20A
D5
X1
141 BN
E
X2
H
762 D-GN/WH
S34 HVAC Controls Switch Assembly
A90 Logic
C
X3
1
2
X4
550 BK
G304
66 L-GN
14
X100
A
B1B A/C Low Side Pressure Switch
B
P
66 L-GN/WH
16
24
X7
K9 Body Control Module
59 BN/L-GN (LWN)
59 D-GN (-LWN)
1 (LWN)
B (-LWN)
Q2 A/C Compressor Clutch
A (-LWN)
2 (LWN)
1250 BK
G102
459 WH/GY (LV1/LWN)
459 D-GN/WH (L96/LC8)
(LV1)
(LWN)
(L96/LC8)
32
33
53
K20 Engine Control Module
2700 BN/RD (LV1/LWN)
2700 GY (L96/LC8)
21
46
26
5V
5514 BK/BN (LV1/LWN)
5514 TN (L96/LC8)
22
48
13
B1 A/C Refrigerant Pressure Sensor
2
1
3
380 L-GN (LV1/LWN)
380 OG/BK (L96/LC8)
6
47
12

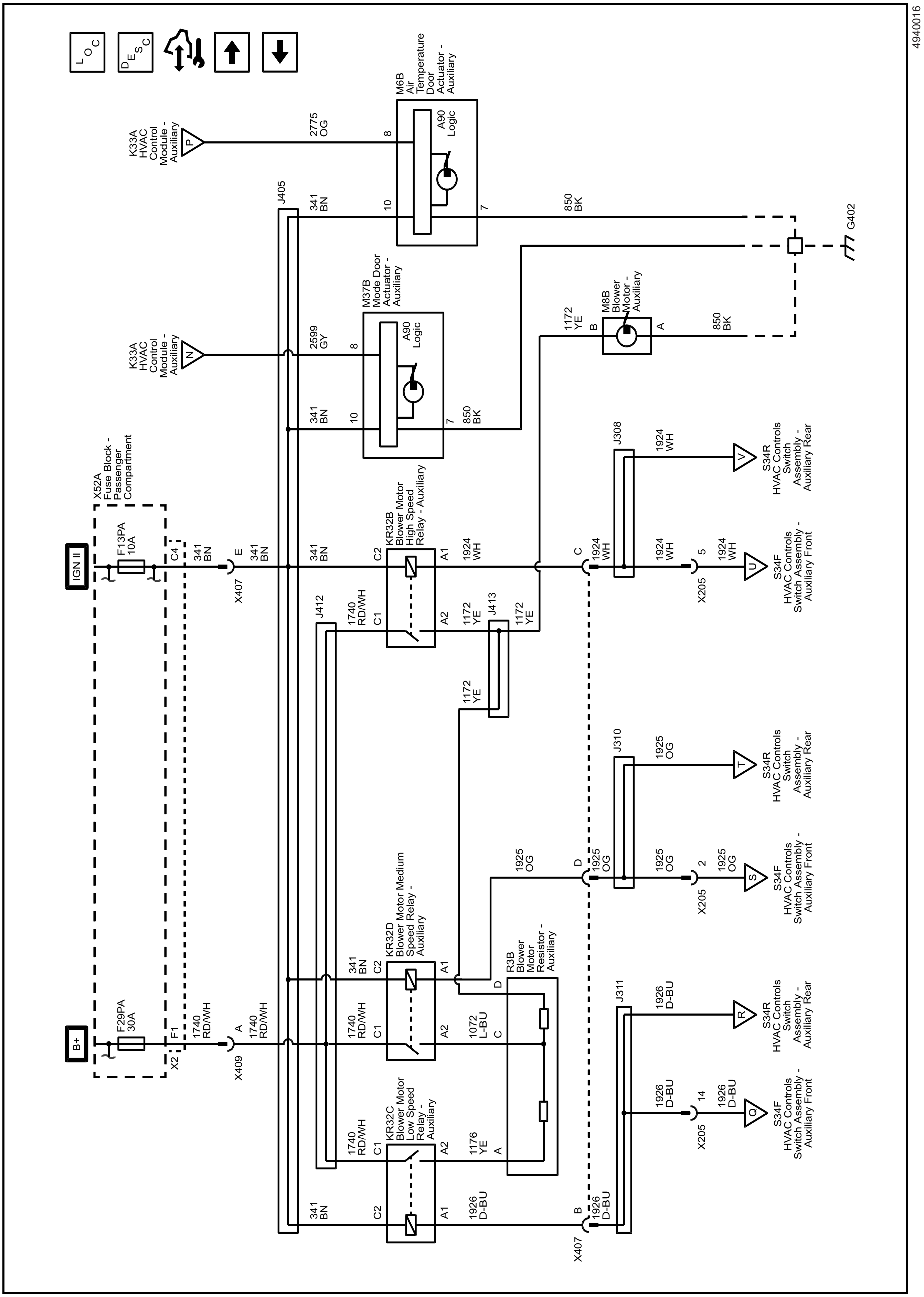
HVAC Schematics (Rear HVAC with Rear Air Conditioning (C69), with Rear HVAC Controls - Air Delivery Controls)


X52A
Fuse Block - Passenger Compartment
KR74
Ignition Run Relay
F13PA
10A
X2
C3
341
BN
X205
6
341
BN
J307
341
BN
W
S34R
HVAC Controls Switch Assembly - Auxiliary Rear
J311
Q
1926
D-BU
C
J310
S
1925
OG
E
J308
U
1924
WH
D
S34F
HVAC Controls Switch Assembly - Auxiliary Front
Interior Lights Dimming Schematics
G
H
J
F
B
341
BN
5260
PU
5261
TN
5262
YE
1850
BK
S34R
HVAC Controls Switch Assembly - Auxiliary Rear
X
Z
Y
5265
PK/BK
L
5264
PU/WH
D
5263
BN
C
A
E
M
J
IGN
K33A
HVAC Control Module - Auxiliary
H
1850
BK
B
F
2775
OG
2599
GY
X205
12
4
2775
OG
2599
GY
X407
A
F
2775
OG
2599
GY
P
N
G348
L O C
D E S C
4940010

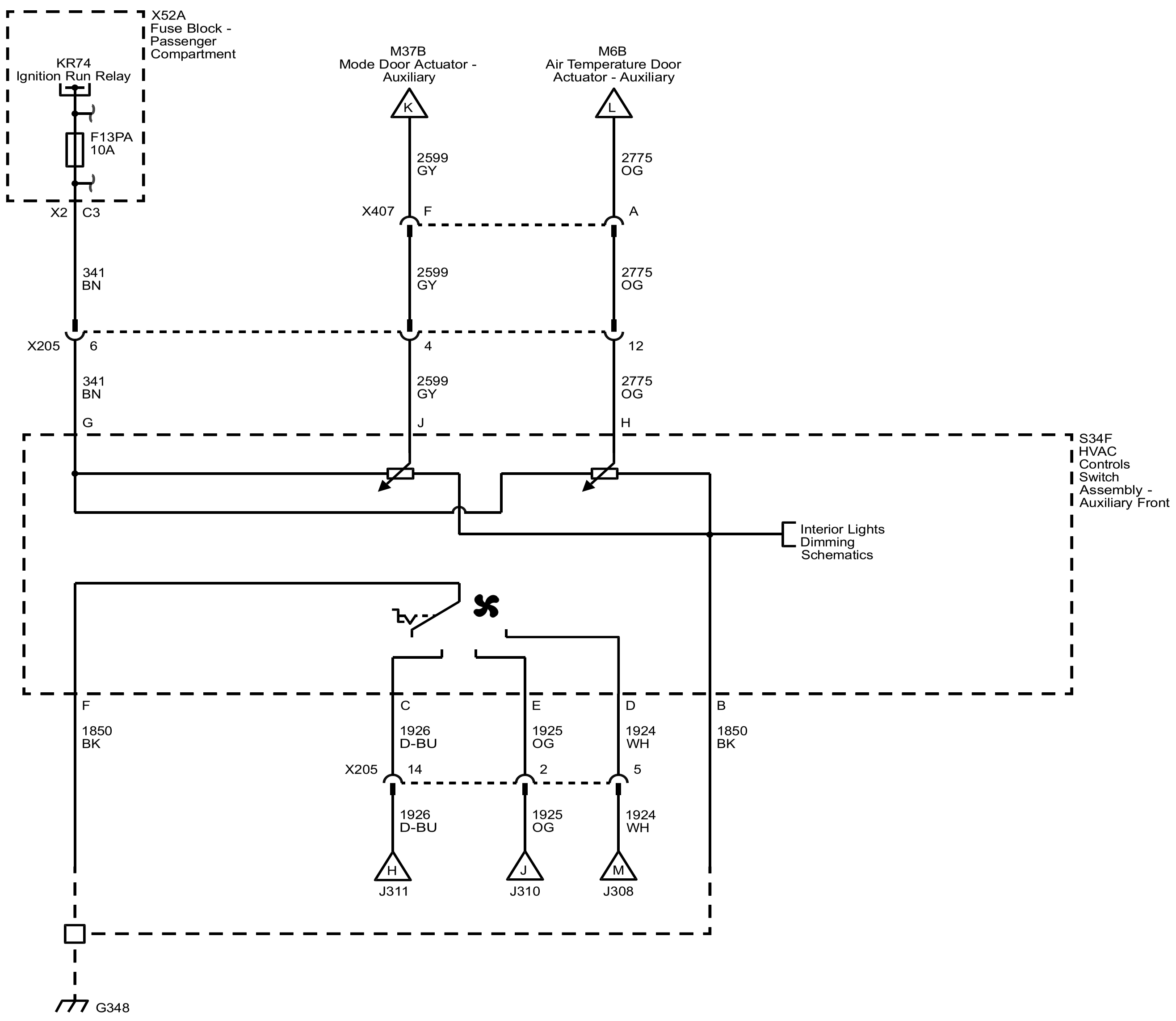
HVAC Schematics (Rear HVAC with Rear Air Conditioning (C69), with Rear HVAC Controls - Rear Controls)


J311
R
1926
D-BU
J310
T
1925
OG
J308
V
1924
WH
X421
5
4
3
1926
D-BU
1925
OG
1924
WH
C
E
D
S34R
HVAC Controls
Switch
Assembly -
Auxiliary Rear
Interior Lights
Dimming
Schematics
F
H
J
G
B
-5BV
5BV
5265
PK/BK
5263
BN
5264
PU/WH
1850
BK
X421
12
9
11
6
PASSENGER
341
BN
X205
3
10
13
G348
G401
X
Y
Z
W
J307
Power
Distribution
Schematics
K33A
HVAC
Control
Module -
Auxiliary
4940012

HVAC Schematics (Rear HVAC with Rear Air Conditioning (C69), with Rear HVAC Controls - Front Controls)

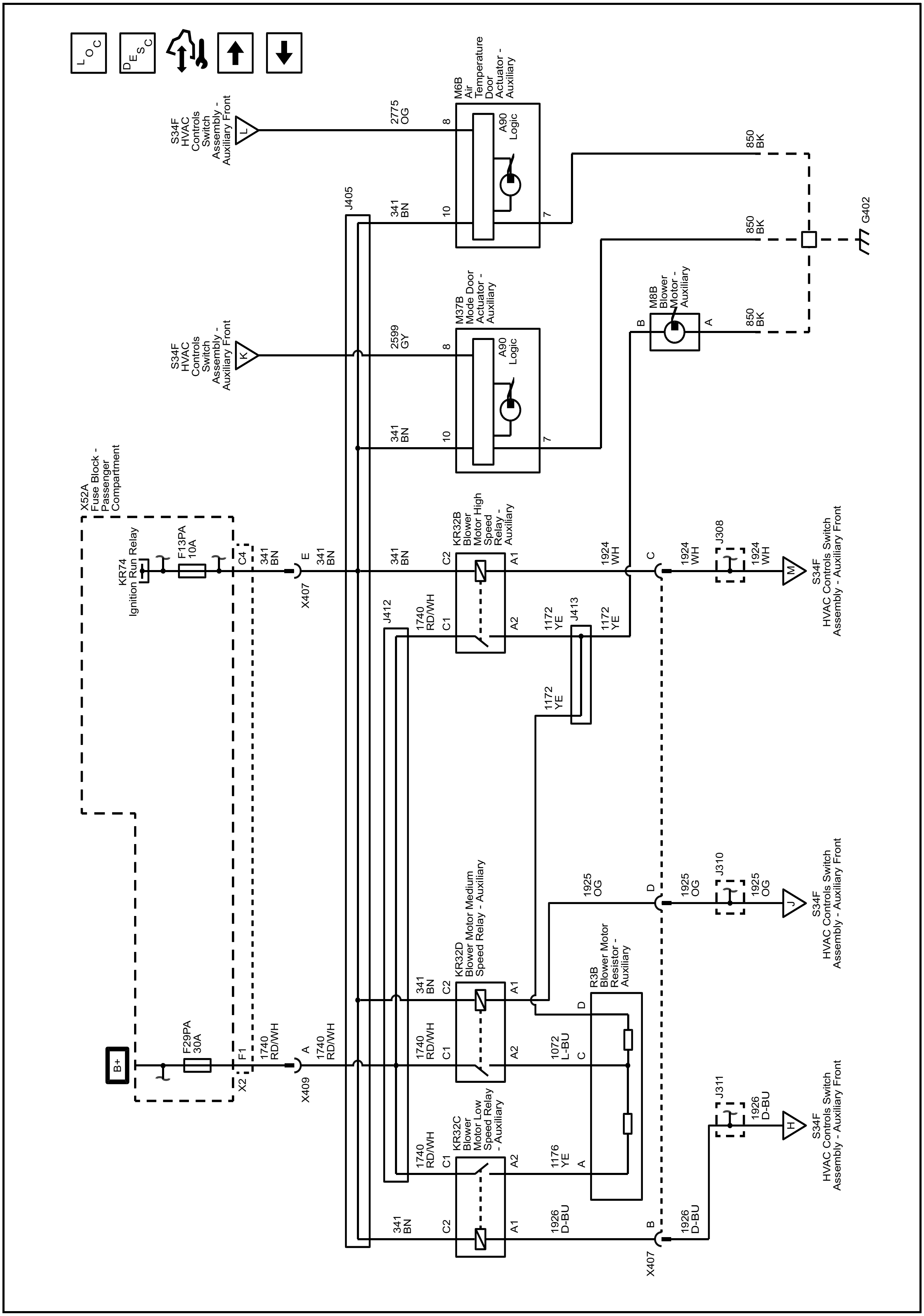

4940016
LOC
DESC
B+
F29PA 30A
IGN II
F13PA 10A
X52A Fuse Block - Passenger Compartment
F1
X2
C4
1740 RD/WH
341 BN
X409
A
X407
E
J405
J412
J413
J308
J310
J311
KR32B Blower Motor High Speed Relay - Auxiliary
KR32C Blower Motor Low Speed Relay - Auxiliary
KR32D Blower Motor Medium Speed Relay - Auxiliary
C1
C2
A1
A2
1924 WH
1172 YE
1176 YE
1072 L-BU
1925 OG
1926 D-BU
R3B Blower Motor Resistor - Auxiliary
A
C
D
B
M37B Mode Door Actuator - Auxiliary
M6B Air Temperature Door Actuator - Auxiliary
A90 Logic
2599 GY
2775 OG
850 BK
8
10
7
K33A HVAC Control Module - Auxiliary
N
P
M8B Blower Motor - Auxiliary
G402
X205
5
2
14
S34F HVAC Controls Switch Assembly - Auxiliary Front
S34R HVAC Controls Switch Assembly - Auxiliary Rear
U
V
S
T
Q
R

HVAC Schematics (Rear HVAC with Rear Air Conditioning (C69), without Rear HVAC Controls - Air Delivery Controls)


X52A
Fuse Block - Passenger Compartment
KR74
Ignition Run Relay
F13PA
10A
X2
C3
341
BN
X205
6
341
BN
G
M37B
Mode Door Actuator - Auxiliary
K
2599
GY
X407
F
2599
GY
4
2599
GY
J
M6B
Air Temperature Door Actuator - Auxiliary
L
2775
OG
A
2775
OG
12
2775
OG
H
S34F
HVAC Controls Switch Assembly - Auxiliary Front
Interior Lights Dimming Schematics
F
1850
BK
C
1926
D-BU
X205
14
1926
D-BU
H
J311
E
1925
OG
2
1925
OG
J
J310
D
1924
WH
5
1924
WH
M
J308
B
1850
BK
G348

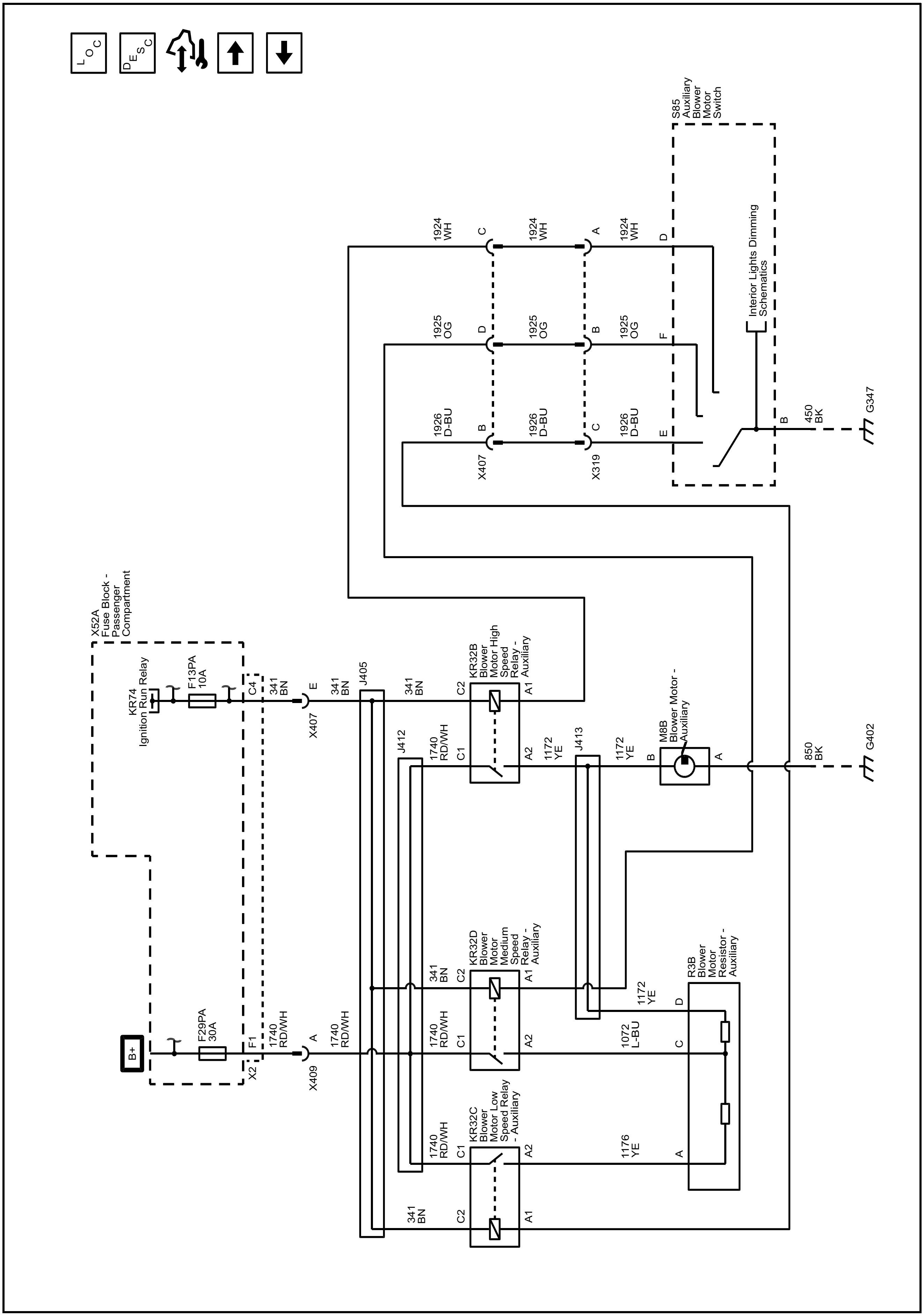
4940030

HVAC Schematics (Rear HVAC with Rear Air Conditioning (C69), without Rear HVAC Controls - Front Controls)

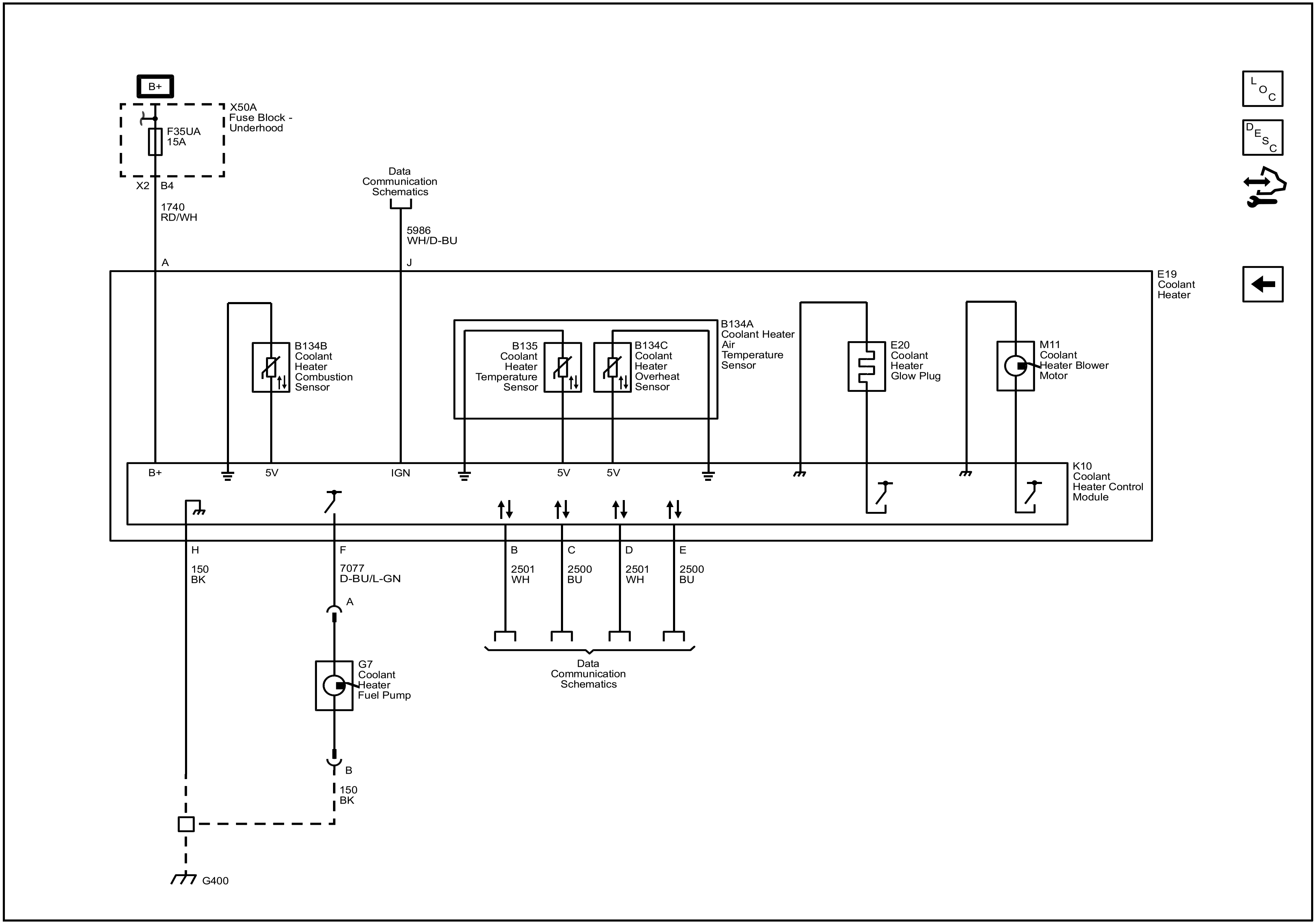

LOC
DESC
S34F HVAC Controls Switch Assembly - Auxiliary Front
L
2775 OG
8
M6B Air Temperature Door Actuator - Auxiliary
A90 Logic
10
7
341 BN
J405
850 BK
G402
S34F HVAC Controls Switch Assembly - Auxiliary Front
K
2599 GY
M37B Mode Door Actuator - Auxiliary
M8B Blower Motor - Auxiliary
B
A
X52A Fuse Block - Passenger Compartment
KR74 Ignition Run Relay
F13PA 10A
C4
E
X407
KR32B Blower Motor High Speed Relay - Auxiliary
C2
C1
A1
A2
J412
1740 RD/WH
1924 WH
C
J308
M
S34F HVAC Controls Switch Assembly - Auxiliary Front
1172 YE
J413
B+
F29PA 30A
F1
X2
X409
KR32D Blower Motor Medium Speed Relay - Auxiliary
R3B Blower Motor Resistor - Auxiliary
D
1925 OG
J310
J
S34F HVAC Controls Switch Assembly - Auxiliary Front
1072 L-BU
KR32C Blower Motor Low Speed Relay - Auxiliary
1176 YE
1926 D-BU
J311
H
S34F HVAC Controls Switch Assembly - Auxiliary Front

4940036

HVAC Schematics (Rear HVAC without Rear Air Conditioning (C36 without C69))


4940040
LOC
DESC
X52A Fuse Block - Passenger Compartment
KR74 Ignition Run Relay
F13PA 10A
F29PA 30A
B+
C4
F1
X2
341 BN
1740 RD/WH
X407
X409
E
A
J405
J412
J413
KR32B Blower Motor High Speed Relay - Auxiliary
KR32D Blower Motor Medium Speed Relay - Auxiliary
KR32C Blower Motor Low Speed Relay - Auxiliary
C1
C2
A1
A2
1172 YE
1072 L-BU
1176 YE
M8B Blower Motor - Auxiliary
R3B Blower Motor Resistor - Auxiliary
850 BK
G402
1924 WH
1925 OG
1926 D-BU
X319
S85 Auxiliary Blower Motor Switch
Interior Lights Dimming Schematics
450 BK
G347
B
C
D
F

HVAC Schematics (Coolant Heater (K08))


L O C
D E S C
B+
X50A
Fuse Block -
Underhood
F35UA
15A
X2
B4
1740
RD/WH
A
Data
Communication
Schematics
5986
WH/D-BU
J
E19
Coolant
Heater
B134B
Coolant
Heater
Combustion
Sensor
B135
Coolant
Heater
Temperature
Sensor
B134C
Coolant
Heater
Overheat
Sensor
B134A
Coolant Heater
Air
Temperature
Sensor
E20
Coolant
Heater
Glow Plug
M11
Coolant
Heater Blower
Motor
B+
5V
IGN
5V
5V
K10
Coolant
Heater Control
Module
H
150
BK
F
7077
D-BU/L-GN
A
B
2501
WH
C
2500
BU
D
2501
WH
E
2500
BU
Data
Communication
Schematics
G7
Coolant
Heater
Fuel Pump
B
150
BK
G400
4940042

Description and Operation

Air Delivery Description and Operation

The air delivery description and operation is divided into 6 areas:

- HVAC Control Components
- Air Speed
- Auxiliary Air Speed
- Air Distribution
- Auxiliary Air Delivery
- Recirculation Operation

HVAC Control Components

HVAC Control Assembly

The HVAC control assembly is a non-class 2 device that interfaces between the operator and the HVAC system to maintain air temperature and distribution settings. The ignition 3 voltage circuit provides power to the control assembly. Two integrated potentiometers control air temperature door position and blower motor speed. The integrated vacuum system controls the mode door position. The control assembly supports the following features:

Feature	Availability
Afterblow	No
Purge	No
Personalization	No
Actuator Calibration	No

Auxiliary HVAC Control Processor

The auxiliary HVAC control processor controls all outputs for the auxiliary HVAC system. The auxiliary HVAC control processor receives inputs from the front and rear auxiliary HVAC control assemblies. The auxiliary HVAC control processor does not utilize Class 2 communications. If the auxiliary HVAC control processor receives a 12 volt varied voltage input for an auxiliary air temperature actuator change request. Then the auxiliary HVAC control processor creates a 12 volt varied output for control of the auxiliary air temperature actuator.

Auxiliary Mode Actuator

The auxiliary mode actuator is a 3 wire bi-directional electric motor. Ignition 3 voltage, ground and control circuits enable the actuator to operate. The control circuit uses a 0-12 volt linear-ramped signal to command the actuator movement. The 0 and 12 volt control values represent the opposite limits of the actuator range of motion. The values in between 0 and 12 volts correspond to the positions between the limits. When the HVAC control assembly sets a commanded, or targeted, value, the control signal is set to a value between 0-12 volts. The actuator shaft rotates until the commanded position is reached. The module will maintain the control value until a new commanded value is needed.

Air Speed

The HVAC control assembly applies voltage to the blower motor control circuit that corresponds to the selected blower speed. The resistors and the blower motor are in a series circuit. The following list represents the number of resistors in series with the blower motor per particular speed request:

- Low speed-3 resistors
- Medium 1 speed-2 resistors
- Medium 2 speed-1 resistor

When the operator requests High speed, the HVAC control assembly applies voltage to the blower motor relay through the high blower motor control circuit. The voltage energizes the blower motor relay, connecting the blower motor to battery positive voltage.

Auxiliary Air Speed

The auxiliary HVAC control assembly applies voltage to the auxiliary blower motor control circuit that corresponds to the selected blower speed. The resistors and the blower motor are in a series circuit. The following list represents the number of resistors in series with the blower motor per particular speed request:

- Low speed-2 resistors
- Medium speed-1 resistor

When the operator requests High speed, the HVAC control assembly applies voltage to the blower motor relay through the auxiliary high blower motor control circuit. The voltage energizes the blower motor relay, connecting the blower motor to battery positive voltage.

Air Distribution

The HVAC control assembly uses vacuum to control the mode door position. Vacuum is supplied to the control assembly and a vacuum tank by either an engine vacuum source, or a vacuum pump when the vehicle is equipped with a diesel engine..

Vacuum Pump (Diesel Engines)

The electric vacuum pump supplies vacuum to the HVAC control assembly and vacuum tank. When the ignition is ON, voltage is supplied to the vacuum pump from the HVAC fuse. The ground is supplied to the vacuum pump from the chassis.

Mode Switch

The mode switch is a rotary vacuum valve that directly applies vacuum to the appropriate vacuum actuator. Use the mode switch to change the air delivery mode in the vehicle.

MAX A/C–If Equipped

When the operator selects MAX A/C, the mode actuator has vacuum applied to it through the Brown vacuum line, making the vent door open. The recirculation actuator has vacuum applied to it through the Orange vacuum line, making the recirculation door close and allowing air to be recirculated. A/C is forced ON.

A/C–If Equipped

When the operator selects A/C, the mode actuator has vacuum applied to it through the Brown vacuum line, making the vent door open. A/C is forced ON.

Bi-Level Mode

When the operator selects Bi-Level, the following occurs:

- The mode actuator is in neutral position.
- The defrost actuator has vacuum applied to it through the Yellow vacuum line.
- The defrost actuator closes the defrost door, thus opening the heater door though mechanical linkage.
- Vacuum is bled off the mode actuator and the vent door is held stationary in the half open position.

Vent Mode

When the operator selects VENT, the mode actuator has vacuum applied to it through the Yellow vacuum line, making the vent door open.

Floor Mode

When the operator selects FLOOR, the defrost actuator has vacuum applied to it through the Pink vacuum line, pulling the defrost door closed and opening the heater door through mechanical linkage.

Mix-Blend Mode

When the operator selects Mix-Blend, the following occurs:

- Vacuum is bled off the defrost actuator, holding the defrost door stationary in the half-open position. The heater door is also held stationary in the half-open position through mechanical linkage.
- A/C is forced ON.
- Recirculation is not available.

Defrost Mode

When the operator selects Defrost, the following occurs:

- The defrost actuator has vacuum applied to it through the Blue vacuum line, pushing the defrost door open and closing the heater door through mechanical linkage.
- A/C is forced ON.
- Recirculation is not available.

Auxiliary Air Distribution

The HVAC control assembly controls the mode actuator in order to distribute airflow to a desired outlet. When the mode door is moved to the defrost position, the A/C compressor clutch engages and the recirculation actuator will be moved to the outside air position. Regardless of the mode setting, a small amount of air will be diverted to the defrost ducts to reduce windshield fogging. When VENT is selected, the following will occur:

- The mode actuator will be moved to the panel position.
- The recirculation actuator will be placed in the outside air position.
- The A/C compressor will be commanded off.

Recirculation Operation

When the operator selects Recirculation, the HVAC control assembly connects the recirculation door vacuum actuator to the vacuum source. The recirculation actuator retracts, closing the recirculation door. The recirculation operation can function with blower motor in either the ON or OFF position. Recirculation will continue until either outside air is selected or the next ignition cycle. Recirculation is not available in Defrost and Mix-Blend mode.

Air Temperature Description and Operation

The air temperature controls are divided into five areas.

- HVAC Control Components
- Heating and A/C Operation
- Auxiliary Heating and A/C Operation
- Engine Coolant
- A/C Cycle

HVAC CONTROL COMPONENTS

HVAC Control Assembly

The HVAC control assembly is a non-class 2 device that interfaces between the operator and the HVAC system to maintain air temperature and distribution settings. The ignition 3 voltage circuits provide power to the control assembly. Two integrated potentiometers control air temperature door position and blower motor speed. The integrated vacuum system controls the mode door position. The control assembly supports the following features:

Feature	Availability
Afterblow	No
Purge	No
Personalization	No
Actuator Calibration	No

Auxiliary HVAC Control Processor

The auxiliary HVAC control processor controls all outputs for the auxiliary HVAC system. The auxiliary HVAC control processor receives inputs from the front and rear auxiliary HVAC control assemblies. The auxiliary HVAC control processor does not utilize Class 2 communications.

If the auxiliary HVAC control processor receives a 12-volt varied voltage input for an auxiliary air temperature actuator change request. Then the auxiliary HVAC control processor creates a 12-volt varied output for control of the auxiliary air temperature actuator.

Air Temperature Actuator

The air temperature actuator and auxiliary air temperature actuator are a 3-wire bi-directional electric motor. Ignition 3 voltage, ground and control circuits enable the actuator to operate. The control circuit uses a 0–12-volt linear-ramped signal to command the actuator movement. The 0 and 12-volt control values represent the opposite limits of the actuator range of motion. The values in between 0 and 12 volts correspond to the positions between the limits.

When the HVAC control assembly sets a commanded, or targeted, value, the control signal is set to a value between 0–12 volts. The actuator shaft rotates until the commanded position is reached. The module will maintain the control value until a new commanded value is needed.

A/C Pressure Switches

The A/C system is protected by two A/C pressure switches.

- A/C low pressure switch
- A/C high pressure switch

The A/C high pressure switch interrupts the A/C request signal when the A/C line pressure is more than a predetermined value. The A/C low pressure switch interrupts the A/C low pressure switch signal when the A/C line pressure is less than or more than a predetermined value. When the powertrain control module (PCM) stops receiving the required signals, the A/C compressor clutch relay control circuit is no longer grounded, disengaging the A/C compressor clutch. The A/C compressor clutch is disengaged under the following conditions:

- A/C low pressure switch is less than 152 kPa (22 psi).
- A/C low pressure switch is more than 310 kPa (45 psi).
- A/C high pressure switch is more than 2896 kPa (420 psi).

Bypass Valves

The bypass valves included in the air temperature system are:

- Coolant Bypass Valve
- Hot Water Bypass Valve

The bypass valve is a normally open valve, which closes when vacuum is applied to the valve. When the MAX A/C mode is selected, vacuum from the HVAC control assembly is applied to the bypass valve. The vacuum must be strong enough to overcome the tension of the valve's internal return spring in order to close the bypass valve. The return spring forces the valve to return to the open position, when any of the other HVAC modes are selected. In the closed position, the flow of coolant to the heater core is bypassed, allowing maximum cooling to the passenger compartment.

Heating and A/C Operation

The purpose of the heating and A/C system is to provide heated and cooled air to the interior of the vehicle. The A/C system will also remove humidity from the interior and reduce windshield fogging. The vehicle operator can determine the passenger compartment temperature by adjusting the air temperature switch. Regardless of the temperature setting, the following can effect the rate that the HVAC system can achieve the desired temperature:

- Recirculation
- Difference between inside and desired temperature
- Difference between ambient and desired temperature
- Blower motor speed setting
- Mode setting
- Auxiliary HVAC settings

The A/C system can be engaged by placing the mode switch in one of the following positions:

- Max A/C
- A/C
- Bi-Level
- Blend
- Defrost

The A/C system can operate regardless of the temperature setting. Regardless of the selected A/C mode setting, a request is sent to the PCM to turn on the A/C compressor clutch.

The following conditions must be met in order for the PCM to turn on the compressor clutch:

- Ambient air temperature is greater than 3°C (38°F)
- Engine coolant temperature (ECT) is less than 123°C (253°F)
- Engine speed is less than 5000 RPM
- The A/C compressor cycling switch pressure is between 124-388 kPa (18-49 psi)
- The A/C high pressure cutout switch is less than 2896 kPa (420 psi)

Once engaged, the compressor clutch will be disengaged for the following conditions:

- Throttle position is 100 percent
- The A/C compressor cycling switch pressure is less than 124 kPa (18 psi) or more than 338 kPa (49 psi)
- The A/C high pressure cutout switch is more than 2896 kPa (420 psi)
- Engine coolant temperature (ECT) is more than 123°C (253°F)
- Engine speed is more than 5000 RPM
- Transmission shift
- PCM detects excessive torque load
- PCM detects insufficient idle quality
- PCM detects a hard launch condition

When the compressor clutch disengages, the compressor clutch diode protects the electrical system from a voltage spike.

Heater Mode – Auxiliary Heater without A/C

The auxiliary blower motor recycles air from the vehicle's interior. The vehicle operator can determine the intensity of the auxiliary heater by placing the auxiliary blower motor in one of the following positions:

- Low
- Med
- High

Since there is no temperature switch, the temperature is controlled by the speed of the auxiliary blower motor. The auxiliary blower motor will only operate when the ignition is in the RUN position, and the auxiliary blower motor switch is in any position other than OFF.

Heater Mode – Front Auxiliary HVAC Control Assembly Only

The auxiliary temperature switch in the front auxiliary HVAC control assembly allows the vehicle operator to adjust the temperature in the rear of the vehicle. Power is provided to both the front auxiliary HVAC control assembly and the auxiliary air temperature actuator from the instrument panel (I/P) fuse block on the ignition 3 voltage circuit.

Voltage delivered to the front auxiliary HVAC control assembly on the ignition 3 voltage circuit is sent to a variable resistor. Based on the placement of the temperature switch, a varied voltage is sent to the auxiliary air temperature actuator on the auxiliary air temperature door control circuit. The auxiliary air temperature actuator positions the temperature door to divert the appropriate amount of air past the heater core in order to achieve the desired temperature.

Heater Mode – Front Auxiliary HVAC Control Assembly with Rear Auxiliary HVAC Control Assembly

The auxiliary temperature switch in the front auxiliary HVAC control assembly allows the vehicle operator to adjust the temperature in the rear of the vehicle. Power is provided to both the front auxiliary HVAC control assembly and the auxiliary air temperature actuator from the (I/P) fuse block on the ignition 3 voltage circuit.

Voltage delivered to the front auxiliary HVAC control assembly on the ignition 3 voltage circuit is sent to a varied resistor. Based on the placement of the temperature switch, a varied voltage is sent to the auxiliary air temperature actuator on the auxiliary air temperature door control circuit, and auxiliary HVAC control processor. The auxiliary air temperature actuator positions the temperature door to divert the appropriate amount of air past the heater core in order to achieve the desired temperature

Heater Mode – Rear Auxiliary HVAC Control Assembly

The auxiliary temperature switch in the rear auxiliary HVAC control assembly allows the rear seat passengers to adjust the temperature in the rear of the vehicle. Power is provided to the rear auxiliary HVAC control assembly, auxiliary HVAC control processor and the auxiliary air temperature actuator from the (I/P) fuse block on the ignition 3 voltage circuit.

To activate the rear auxiliary HVAC control assembly, the front auxiliary HVAC control assembly must be placed in the REAR CNTL position. Ignition 3 voltage is sent to the auxiliary HVAC control processor. When the switch is placed in the REAR CNTL position, the voltage is grounded through the auxiliary blower motor switch control, front auxiliary HVAC control assembly and the ground circuit to allow the rear auxiliary HVAC control assembly to operate the auxiliary temperature actuator. Voltage delivered to the rear auxiliary HVAC control assembly on the ignition 3 voltage circuit is sent to a variable resistor. Based on the placement of the temperature switch, a varied voltage is sent to the auxiliary air temperature actuator on the auxiliary air temperature door control circuit, and auxiliary HVAC control processor. The auxiliary air temperature actuator positions the temperature door to divert the appropriate amount of air past the heater core in order to achieve the desired temperature.

A/C Mode – Front Auxiliary HVAC Control Assembly Only

The auxiliary temperature switch in the front auxiliary HVAC control assembly allows the vehicle operator to adjust the temperature in the rear of the vehicle. Power is provided to both the front auxiliary HVAC control assembly and the auxiliary air temperature actuator from the (I/P) fuse block on the ignition 3 voltage circuit.

Voltage delivered to the front auxiliary HVAC control assembly on the ignition 3 voltage circuit is sent to a variable resistor. Based on the placement of the temperature switch, a varied voltage is sent to the auxiliary air temperature actuator on the auxiliary air temperature door control circuit. The auxiliary air temperature actuator positions the temperature door to divert the appropriate amount of air past the heater core in order to achieve the desired temperature.

A/C Mode – Front Auxiliary HVAC Control Assembly with Rear Auxiliary HVAC Control Assembly

The auxiliary temperature switch in the front auxiliary HVAC control assembly allows the vehicle operator to adjust the temperature in the rear of the vehicle. Power is provided to both the front auxiliary HVAC control assembly and the auxiliary air temperature actuator from the (I/P) fuse block on the ignition 3 voltage circuit.

Voltage delivered to the front auxiliary HVAC control assembly on the ignition 3 voltage circuit is sent to a variable resistor. Based on the placement of the temperature switch, a varied voltage is sent to the auxiliary air temperature actuator on the auxiliary air temperature door control circuit, and auxiliary HVAC control processor. The auxiliary air temperature actuator positions the temperature door to divert the appropriate amount of air past the heater core in order to achieve the desired temperature.

A/C Mode – Rear Auxiliary HVAC Control Assembly

The auxiliary temperature switch in the rear auxiliary HVAC control assembly allows the rear seat passengers to adjust the temperature in the rear of the vehicle. Power is provided to the rear auxiliary HVAC control assembly, auxiliary HVAC control processor and the auxiliary air temperature actuator from the (I/P) fuse block on the ignition 3 voltage circuit.

To activate the rear auxiliary HVAC control assembly, the front auxiliary HVAC control assembly must be placed in the REAR CNTL position. Ignition 3 voltage is sent to the auxiliary HVAC control processor. When the switch is placed in the REAR CNTL position, the voltage is grounded through the auxiliary blower motor switch control, front auxiliary HVAC control assembly and the ground circuit to allow the rear auxiliary HVAC control assembly to operate the auxiliary temperature actuator. Voltage delivered to the rear auxiliary HVAC control assembly on the ignition 3 voltage circuit is sent to a varied resistor. Based on the placement of the temperature switch, a varied voltage is sent to the auxiliary air temperature actuator on the auxiliary air temperature door control circuit, and auxiliary HVAC control processor. The auxiliary air temperature actuator positions the temperature door to divert the appropriate amount of air past the heater core in order to achieve the desired temperature.

Engine Coolant

Engine coolant is the key element of the heating system. The thermostat controls engine operating coolant temperature. The thermostat also creates a restriction for the cooling system that promotes a positive coolant flow and helps prevent cavitation. Coolant enters the heater core through the inlet heater hose, in a pressurized state.

The heater core is located inside the HVAC module. The heat of the coolant flowing through the heater core is absorbed by the ambient air drawn through the HVAC module. Heated air is distributed to the passenger compartment, through the HVAC module, for passenger comfort.

The amount of heat delivered to the passenger compartment is controlled by opening or closing the HVAC module air temperature door. The coolant exits the heater core through the return heater hose and recirculated back through the engine cooling system.

Coolant Heater (K08)

The coolant heater function is to provide additional heat to the passenger compartment. The coolant heater burns diesel fuel, to heat up the engine coolant when the vehicle is running and will only operate during conditions where ambient temperature is below 4°C (39°F) and a fuel tank level greater than 12.5 percent. The heat of the hot engine coolant is transferred to the HVAC module to heat the passenger compartment. The coolant heater does not heat up instantly. It must go through a self test and start up procedure before normal operation. The vehicle must be running to start the unit but after the unit is no longer commanded on a two minute shut down (purge) procedure starts. The coolant flow is from the engine to the fuel operated heater through the heat exchanger back to the engine.

Battery voltage and ground is supplied to the coolant heater. The electronic control unit inside the coolant heater determines when the unit will turn ON and OFF as well as how it will function. The electronic control unit also uses GMLAN communication and the engine control module (ECM) to transfer coolant heater information that the scan tool can read. The fuel operated heater contains flame sensors to disable the glow plug once the flame is established or to abort the startup attempt if the flame is not established.

Inputs to the coolant heater electronic control unit:

- Coolant sensor
- Overheat sensor
- Combustion sensor
- GMLAN ECM

Outputs from the coolant heater electronic control unit:

- Fuel pump
- Glow plug
- Blower motor
- GMLAN ECM

The coolant heater controls the coolant temperature with 3 operating modes.

- HIGH—If coolant temperature is in a range between −40 to +75°C (−40 to +176°F), the coolant heater fuel pump will pump fuel at maximum capacity to increase the coolant temperature as fast as possible. Note: Ambient temperature must be below 4°C (39°F), fuel tank level greater than 12.5 percent and the engine should be running.
- LOW—If coolant temperature is in a range between 85–90°C (185–194°F), the coolant heater fuel pump will pump fuel at minimum capacity to increase the coolant temperature at a slower rate.
- OFF—If coolant temperature is above 90°C (195° F), the coolant heater fuel pump will stop pumping fuel and allow the remaining fuel in the combustion chamber to burn out. The coolant heater fuel pump will not start pumping fuel again until the coolant temperature reaches 75°C (167°F).

FUNCTIONAL PRINCIPLES:

- The vehicle coolant pump continuously circulates the coolant over the heat exchanger inside the fuel operated heater and throughout the coolant system.
- The coolant heater fuel pump pumps the fuel from the vehicle fuel tank to the combustion chamber.
- Coolant heater blower blows the oxygen, which is necessary for the combustion process, into the combustion chamber.
- A Coolant heater glow plug generates the evaporation energy and creates the temperature which is necessary to ignite the Air-Fuel mixture
- The heat exchanger inside the fuel operated heater transfers the energy of the combustion process into the engine coolant.
- Depending on the coolant temperature, which is detected by the coolant sensors, the heater chooses either high or low setting or gets shut off.

SELF TEST OF THE UNIT:

Before every start of the heater, the operation of the individual components is tested.

- Fuel operated heater control unit check
- Flame sensor
- Coolant sensor
- Overheating sensor
- Glow plug
- Fuel pump
- Blower motor

The fuel operated heater will only start after the self test of the heating unit is successful. Should a fault be detected, a fault notification will be output through the vehicle diagnosis.

DESCRIPTION OF SAFETY MECHANISM :

During start up the ECU is performing a random access memory (RAM), read-only memory (ROM) and electrically erasable programmable read-only memory (EEPROM) test. If failures occur during a self test of the unit, the unit will not start.

- If the power supply voltage exceeds 16 volts the unit will not start or shut off with after purge time of 120 seconds.
- If the power supply voltage goes below 10.2 V for more than 40 seconds the unit will shut off and try to restart after a purge time of 120 seconds. If the failure occurs 3 times, then unit is not going to restart till next key off.

Description of component checks:

- Coolant Heater Blower Motor—After the unit is commanded on and before normal operation the blower is tested for an open circuit. While the heater is activated the blower is tested for a short to ground.
- Flame sensor—The flame sensor is tested continuously during operation for a short to ground, short to voltage or open circuit.
- Glow plug—After the unit is commanded and before normal operation the glow plug is tested for an open circuit. While the heater is activated the glow plug is tested for a short to ground.
- Coolant Heater Fuel Pump—After the coolant heater is commanded on and before normal operation is activated, the fuel pump is tested for an open circuit. While the coolant heater is activated the fuel pump is tested for a short to ground.
- Overheating Sensor and Coolant sensor—The overheat sensor and coolant sensor are tested continuously during operation for a short to ground, short to voltage or open circuit.

FIRST START OF THE UNIT (125 seconds):

After the self test was successfully completed a first start procedure sequence is attempted.

1. The ceramic glow plug starts to heat the combustion chamber.
2. After a delay, the blower switches on. During the start procedure, the blower continuously increases blowing speed.
3. The fuel pump pumps fuel into the combustion chamber. The cycle frequency of the fuel pump is also continuously increased during the start procedure.
4. The glow plug starts to vaporize the fuel, and creates the temperature to ignite the fuel.
5. After ignition, the heater runs continuously to reach the maximum heating power.
6. After the flame sensor has detected the flame, the start procedure is complete, and the glow plug switches off.

SECOND START OF THE UNIT (125 seconds):

If the first start is not successful, the heater attempts a second restart process. In doing this, the glow plug voltage is increased, in order to obtain better starting conditions. The first start sequence is then repeated.

UNSUCCESSFUL SECOND START:

If the second start is not successful in igniting the heater, a fault code is output from the heater.

- A new attempt to start will only occur after the ignition switch is cycled.
- After 10 failed ignition cycles one after the other, all further start attempts are stopped by the control unit. This inhibit state can only be released by clearing the codes with a scan tool.

A/C Cycle

Refrigerant is the key element in an air conditioning system. R-134a is presently the only EPA approved refrigerant for automotive use. R-134a is an very low temperature gas that can transfer the undesirable heat and moisture from the passenger compartment to the outside air.

The A/C compressor is belt driven and operates when the magnetic clutch is engaged. The compressor builds pressure on the vapor refrigerant. Compressing the refrigerant also adds heat to the refrigerant. The refrigerant is discharged from the compressor, through the discharge hose, and forced to flow to the condenser and then through the balance of the A/C system. The A/C system is mechanically protected with the use of a high pressure relief valve. If the high pressure switch were to fail or if the refrigerant system becomes restricted and refrigerant pressure continued to rise, the high pressure relief will pop open and release refrigerant from the system.

Compressed refrigerant enters the condenser in a high temperature, high pressure vapor state. As the refrigerant flows through the condenser, the heat of the refrigerant is transferred to the ambient air passing through the condenser. Cooling the refrigerant causes the refrigerant to condense and change from a vapor to a liquid state.

The condenser is located in front of the radiator for maximum heat transfer. The condenser is made of aluminum tubing and aluminum cooling fins, which allows rapid heat transfer for the refrigerant. The semi-cooled liquid refrigerant exits the condenser and flows through the liquid line, to the orifice tube.

The orifice tube is located in the liquid line between the condenser and the evaporator. The orifice tube is the dividing point for the high and the low pressure sides of the A/C system. As the refrigerant passes through the orifice tube, the pressure on the refrigerant is lowered. Due to the pressure differential on the liquid refrigerant, the refrigerant will begin to vaporize at the orifice tube. The orifice tube also meters the amount of liquid refrigerant that can flow into the evaporator.

Refrigerant exiting the orifice tube flows into the evaporator core in a low pressure, liquid state. Ambient air is drawn through the HVAC module and passes through the evaporator core. Warm and moist air will cause the liquid refrigerant boil inside of the evaporator core. The boiling refrigerant absorbs heat from the ambient air and draws moisture onto the evaporator. The refrigerant exits the evaporator through the suction line and back to the compressor, in a vapor state, and completing the A/C cycle of heat removal. At the compressor, the refrigerant is compressed again and the cycle of heat removal is repeated.

The conditioned air is distributed through the HVAC module for passenger comfort. The heat and moisture removed from the passenger compartment will also change form, or condense, and is discharged from the HVAC module as water.

A/C Cycle with Auxiliary

The auxiliary A/C system operates from the vehicles primary A/C system. The front or primary A/C system must be ON to allow the rear A/C system to function.

Refrigerant is the key element in an air conditioning system. R-134a is presently the only EPA approved refrigerant for automotive use. R-134a is an very low temperature gas that can transfer the undesirable heat and moisture from the passenger compartment to the outside air.

The A/C system used on this vehicle is a non cycling system. Non cycling A/C systems use a high pressure switch to protect the A/C system from excessive pressure. The high pressure switch will OPEN the electrical signal, to the compressor clutch, in the event that the refrigerant pressure becomes excessive. After the high and low side of the A/C system pressure equalize, the high pressure switch will CLOSE. Closing the high pressure switch will complete the electrical circuit to the compressor clutch. The A/C system is also mechanically protected with the use of a high pressure relief valve. If the high pressure switch were to fail or if the refrigerant system becomes restricted and refrigerant pressure continued to rise, the high pressure relief will pop open and release refrigerant from the system.

The A/C compressor is belt driven and operates when the magnetic clutch is engaged. The compressor builds pressure on the vapor refrigerant. Compressing the refrigerant also adds heat to the refrigerant. The refrigerant is discharged from the compressor, through the discharge hose, and forced to flow to the condenser and then through the balance of the A/C system.

Compressed refrigerant enters the condenser in a high temperature, high pressure vapor state. As the refrigerant flows through the condenser, the heat of the refrigerant is transferred to the ambient air passing through the condenser. Cooling the refrigerant causes the refrigerant to condense and change from a vapor to a liquid state.

The condenser is located in front of the radiator for maximum heat transfer. The condenser is made of aluminum tubing and aluminum cooling fins, which allows rapid heat transfer for the refrigerant. The semi-cooled liquid refrigerant exits the condenser and flows through the liquid line. The liquid line flow is split and the liquid refrigerant flows to both the front or primary A/C system, and to the liquid line for the rear A/C system.

The liquid refrigerant, flowing to the rear A/C system, flows into the rear TXV. The rear TXV is located at the rear evaporator inlet. The TXV is the dividing point for the high and the low pressure sides of the rear A/C system. As the refrigerant passes through the TXV, the pressure on the refrigerant is lowered. Due to the pressure differential on the liquid refrigerant, the refrigerant will begin to boil at the expansion device. The TXV also meters the amount of liquid refrigerant that can flow into the evaporator.

Refrigerant exiting the TXV flows into the evaporator core in a low pressure, liquid state. Ambient air is drawn through the rear A/C module and passes through the evaporator core. Warm and moist air will cause the liquid refrigerant boil inside of the evaporator core. The boiling refrigerant absorbs heat from the ambient air and draws moisture onto the evaporator. The refrigerant exits the evaporator through the suction line and back to the primary A/C systems suction line. Refrigerant in the primary A/C system suction line flows back to the compressor, in a vapor state, and completes the A/C cycle of heat removal. At the compressor, the refrigerant is compressed again and the cycle of heat removal is repeated.

The conditioned air is distributed through the rear A/C module for passenger comfort. The heat and moisture removed from the rear passenger compartment will also change form, or condense, and is discharged from the rear A/C module as water.

Section 6

Power and Signal Distribution

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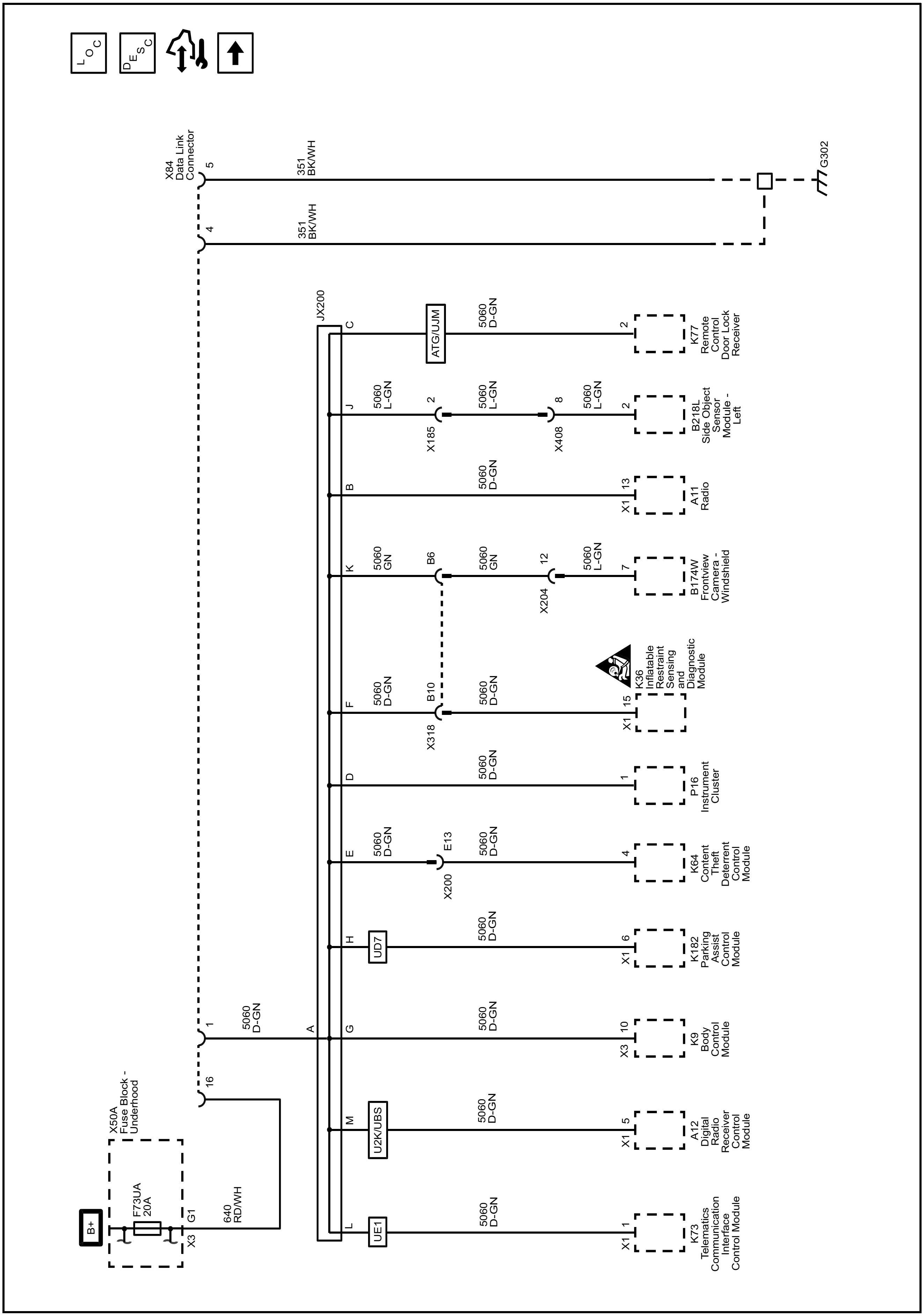
BLANK

Data Communications

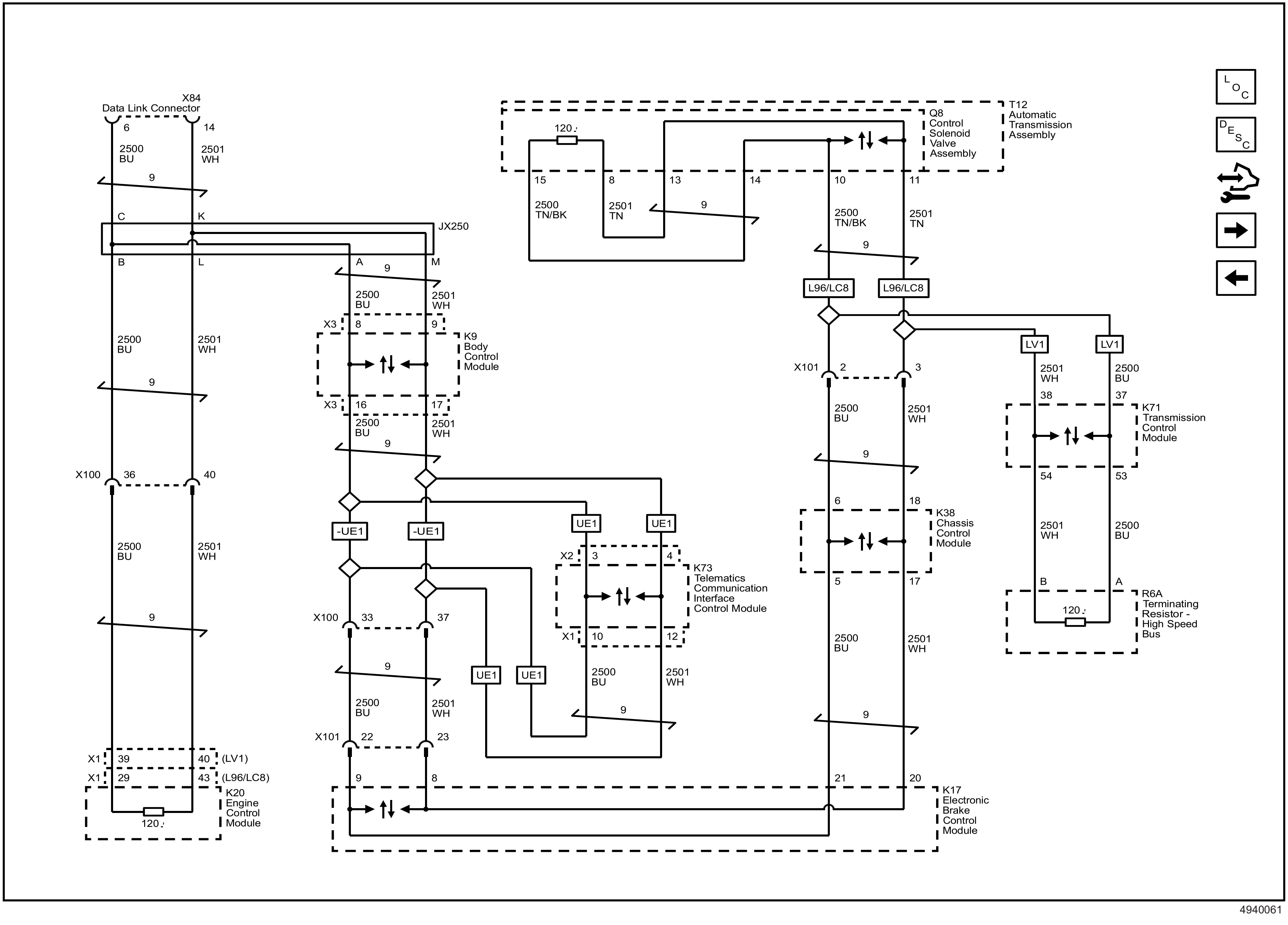
Schematic and Routing Diagrams

Data Communication Schematics (Low Speed GMLAN)

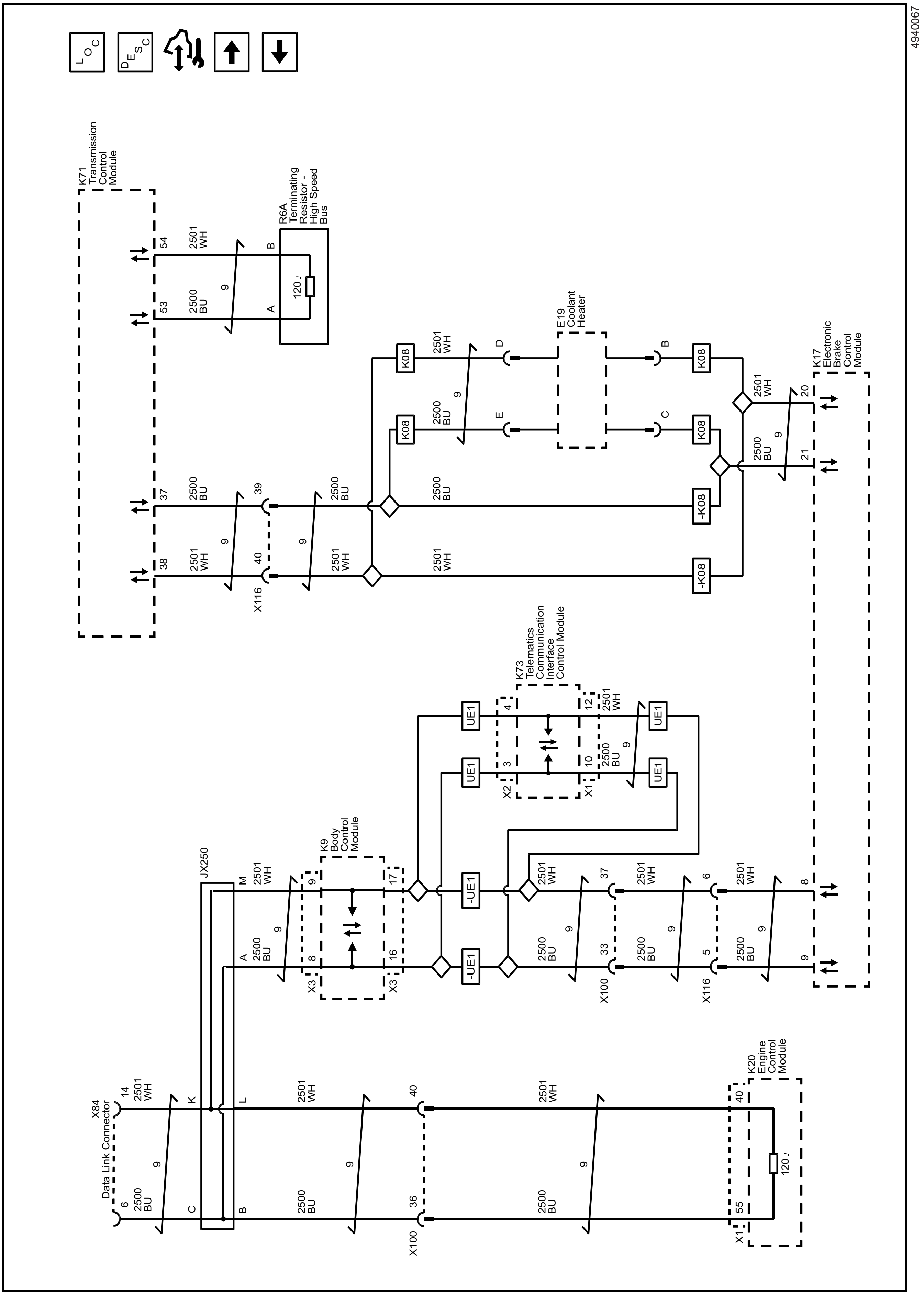


4940060
LOC
DESC
X84 Data Link Connector
5
4
1
16
351 BK/WH
351 BK/WH
G302
X50A Fuse Block - Underhood
B+
F73UA 20A
X3
G1
640 RD/WH
5060 D-GN
A
JX200
C
J
B
K
F
D
E
H
G
M
L
ATG/UJM
UD7
U2K/UBS
UE1
5060 L-GN
5060 GN
B6
B10
E13
2
8
12
X185
X408
X204
X318
X200
5060 D-GN
5060 L-GN
5060 GN
2
K77 Remote Control Door Lock Receiver
2
B218L Side Object Sensor Module - Left
X1 13
A11 Radio
7
B174W Frontview Camera - Windshield
X1 15
K36 Inflatable Restraint Sensing and Diagnostic Module
1
P16 Instrument Cluster
4
K64 Content Theft Deterrent Control Module
X1 6
K182 Parking Assist Control Module
X3 10
K9 Body Control Module
X1 5
A12 Digital Radio Receiver Control Module
X1 1
K73 Telematics Communication Interface Control Module

Data Communication Schematics (High Speed GMLAN (Gas))

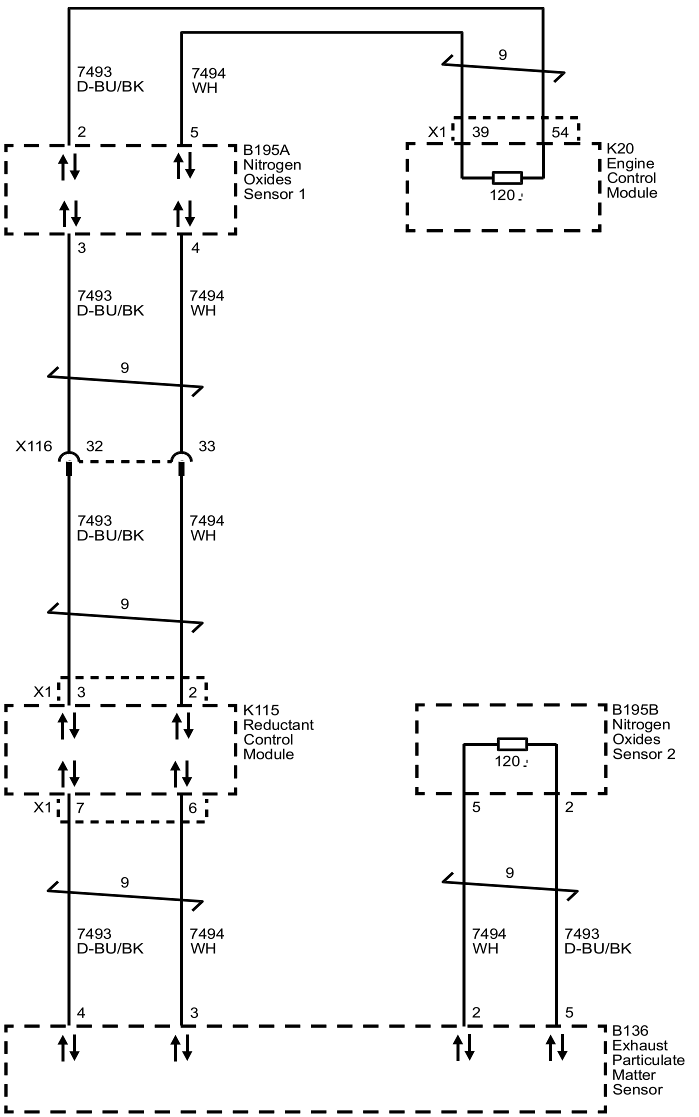

X84
Data Link Connector
6
14
2500
BU
2501
WH
9
C
K
B
L
JX250
A
M
K9
Body
Control
Module
X3
8
9
16
17
X100
36
40
33
37
X101
22
23
2
3
-UE1
UE1
K73
Telematics
Communication
Interface
Control Module
X2
X1
3
4
10
12
X1
39
40
(LV1)
29
43
(L96/LC8)
K20
Engine
Control
Module
120 Ω
K17
Electronic
Brake
Control
Module
21
20
K38
Chassis
Control
Module
6
18
5
17
T12
Automatic
Transmission
Assembly
Q8
Control
Solenoid
Valve
Assembly
15
8
13
14
10
11
2500
TN/BK
2501
TN
L96/LC8
LV1
K71
Transmission
Control
Module
38
37
54
53
R6A
Terminating
Resistor -
High Speed
Bus
B
A
L O C
D E S C
4940061

Data Communication Schematics (High Speed GMLAN (Diesel))



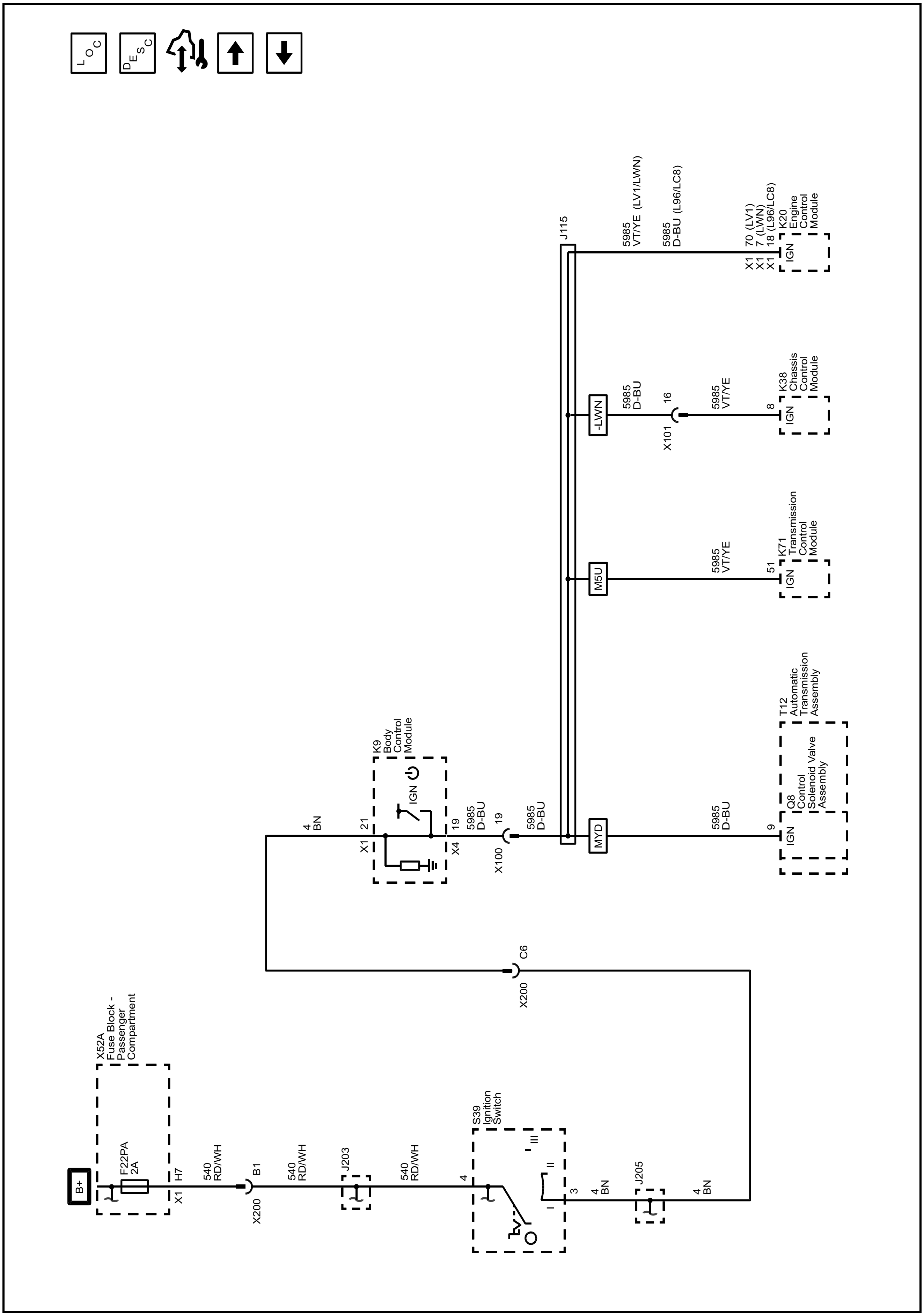
4940067
K71 Transmission Control Module
R6A Terminating Resistor - High Speed Bus
120 Ω
E19 Coolant Heater
K17 Electronic Brake Control Module
K73 Telematics Communication Interface Control Module
K9 Body Control Module
JX250
X84 Data Link Connector
K20 Engine Control Module
X100
X116
X1
X2
X3
K08
-K08
UE1
-UE1
2500 BU
2501 WH
9
53
54
37
38
39
40
A
B
C
D
E
20
21
3
4
10
12
8
9
16
17
M
K
L
6
14
33
5
36
55

Data Communication Schematics (Powertrain High Speed GMLAN (LWN))

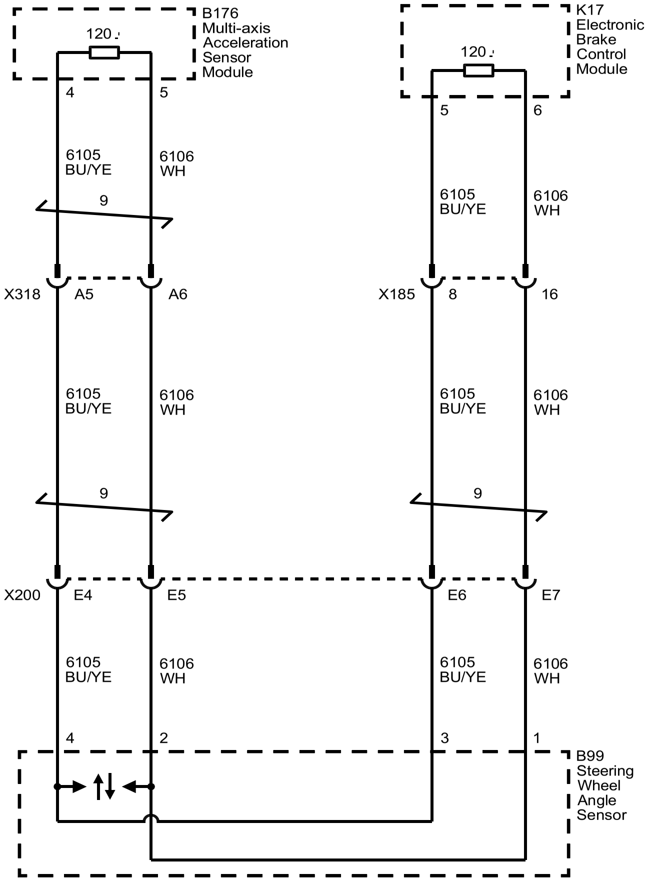

7493
D-BU/BK
7494
WH
9
X1
39
54
K20
Engine
Control
Module
120 Ω
2
5
B195A
Nitrogen
Oxides
Sensor 1
3
4
7493
D-BU/BK
7494
WH
9
X116
32
33
7493
D-BU/BK
7494
WH
9
X1
3
2
K115
Reductant
Control
Module
X1
7
6
B195B
Nitrogen
Oxides
Sensor 2
120 Ω
5
2
9
7493
D-BU/BK
7494
WH
7494
WH
7493
D-BU/BK
4
3
2
5
B136
Exhaust
Particulate
Matter
Sensor

4940068

Data Communication Schematics (Accessory Wakeup)

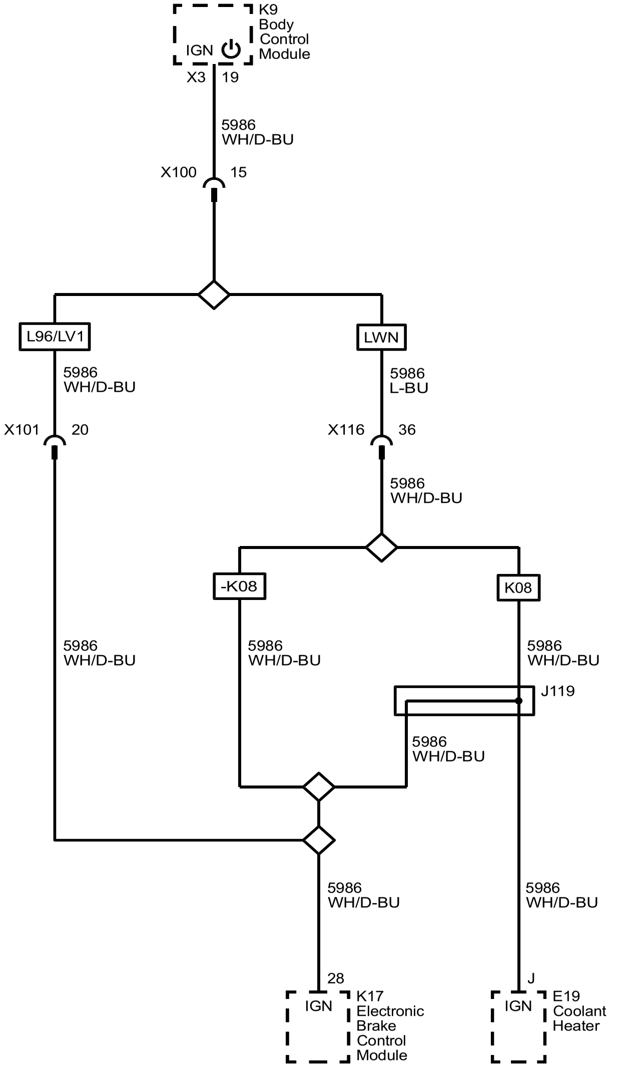

4940069
LOC
DESC
B+
X52A
Fuse Block - Passenger Compartment
F22PA
2A
X1 H7
540
RD/WH
B1
X200
J203
4
S39
Ignition Switch
I
II
III
3
4
BN
J205
X200 C6
X1 21
X4 19
K9
Body Control Module
IGN
19
X100
5985
D-BU
J115
MYD
M5U
-LWN
X101 16
5985
VT/YE (LV1/LWN)
5985
D-BU (L96/LC8)
X1 70 (LV1)
X1 7 (LWN)
X1 18 (L96/LC8)
K20
Engine Control Module
8
K38
Chassis Control Module
51
K71
Transmission Control Module
9
Q8
Control Solenoid Valve Assembly
T12
Automatic Transmission Assembly

Data Communication Schematics (Chassis High Speed GMLAN)


B176
Multi-axis
Acceleration
Sensor
Module
120 Ω
4
5
6105
BU/YE
6106
WH
9
X318
A5
A6
X200
E4
E5
K17
Electronic
Brake
Control
Module
120 Ω
5
6
X185
8
16
E6
E7
B99
Steering
Wheel
Angle
Sensor
4
2
3
1

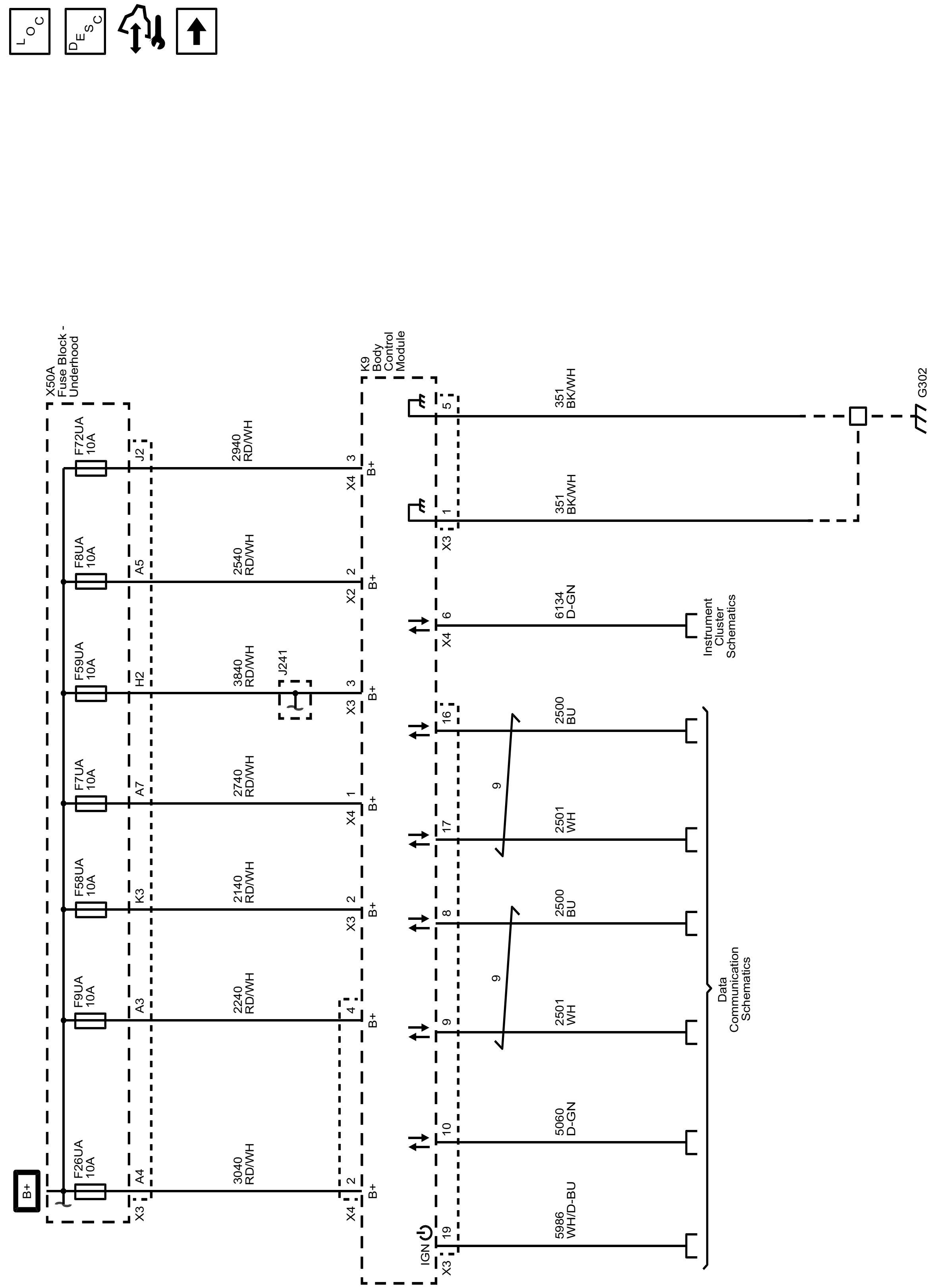
4940070

Data Communication Schematics (Communications Enable)

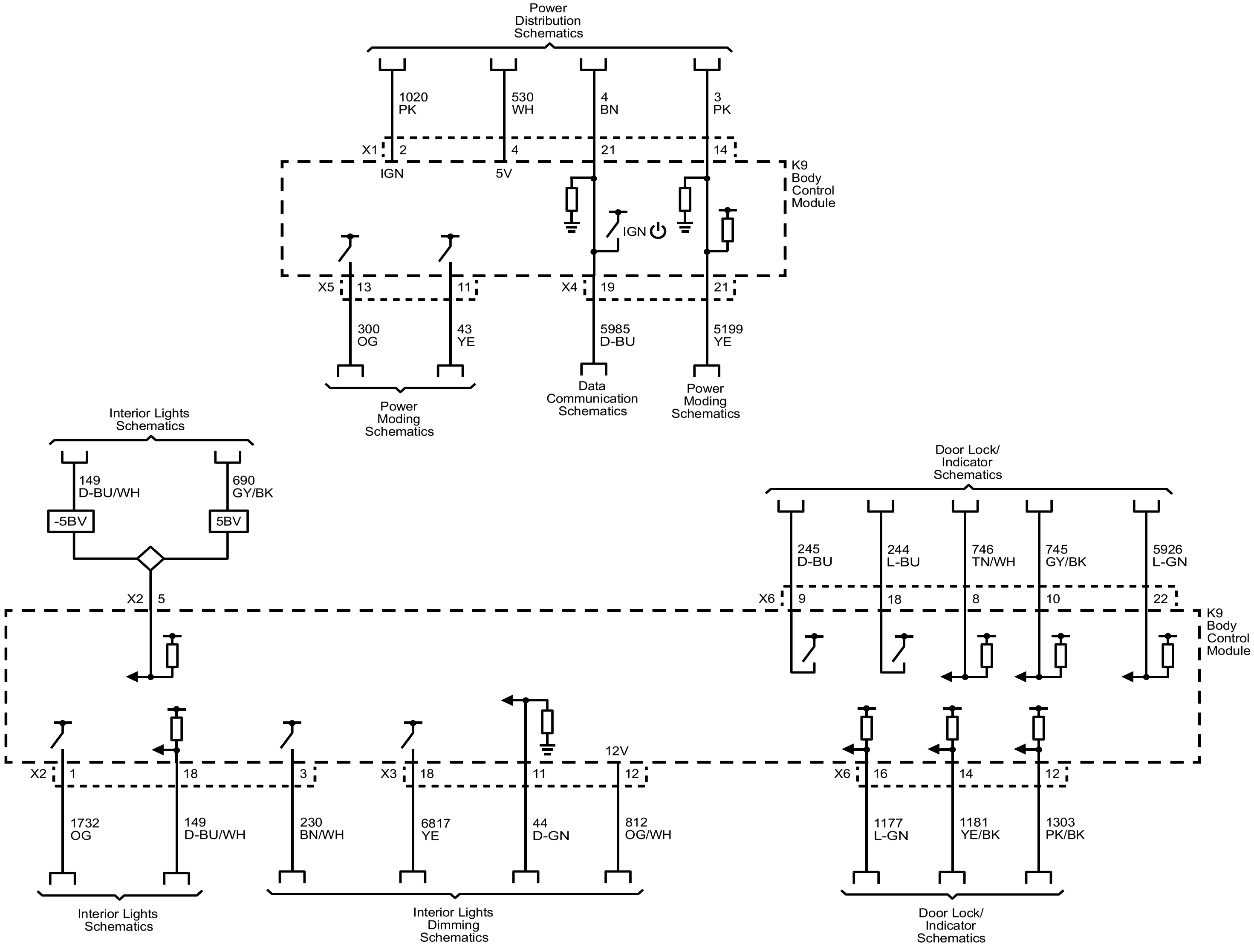

K9
Body
Control
Module
IGN
X3
19
5986
WH/D-BU
X100
15
L96/LV1
LWN
5986
WH/D-BU
5986
L-BU
X101
20
X116
36
5986
WH/D-BU
-K08
K08
5986
WH/D-BU
5986
WH/D-BU
5986
WH/D-BU
J119
5986
WH/D-BU
5986
WH/D-BU
5986
WH/D-BU
28
J
IGN
K17
Electronic
Brake
Control
Module
IGN
E19
Coolant
Heater

4940071

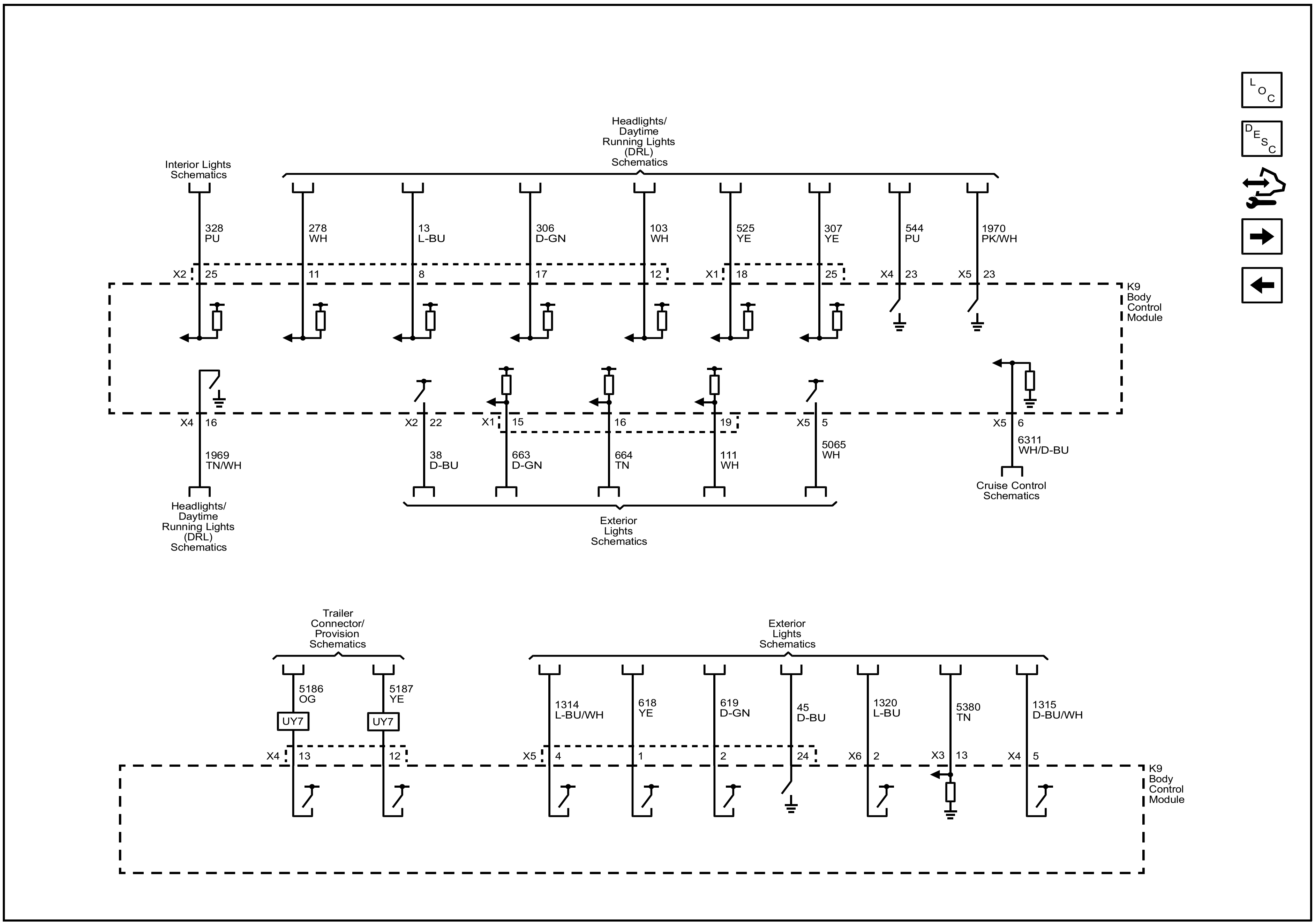
Body Control System Schematics (BCM Power, Ground and Serial Data)


4940073
LOC
DESC
B+
X50A Fuse Block - Underhood
F26UA 10A
F9UA 10A
F58UA 10A
F7UA 10A
F59UA 10A
F8UA 10A
F72UA 10A
X3 A4
A3
K3
A7
H2
A5
J2
3040 RD/WH
2240 RD/WH
2140 RD/WH
2740 RD/WH
3840 RD/WH
2540 RD/WH
2940 RD/WH
J241
X4 2 B+
4 B+
X3 2 B+
X4 1 B+
X3 3 B+
X2 2 B+
X4 3 B+
K9 Body Control Module
IGN
X3 19
10
9
8
17
16
X4 6
X3 1
5
5986 WH/D-BU
5060 D-GN
2501 WH
2500 BU
2501 WH
2500 BU
9
9
6134 D-GN
351 BK/WH
351 BK/WH
G302
Instrument Cluster Schematics
Data Communication Schematics

Body Control System Schematics (BCM Inputs and Outputs (1 of 3))

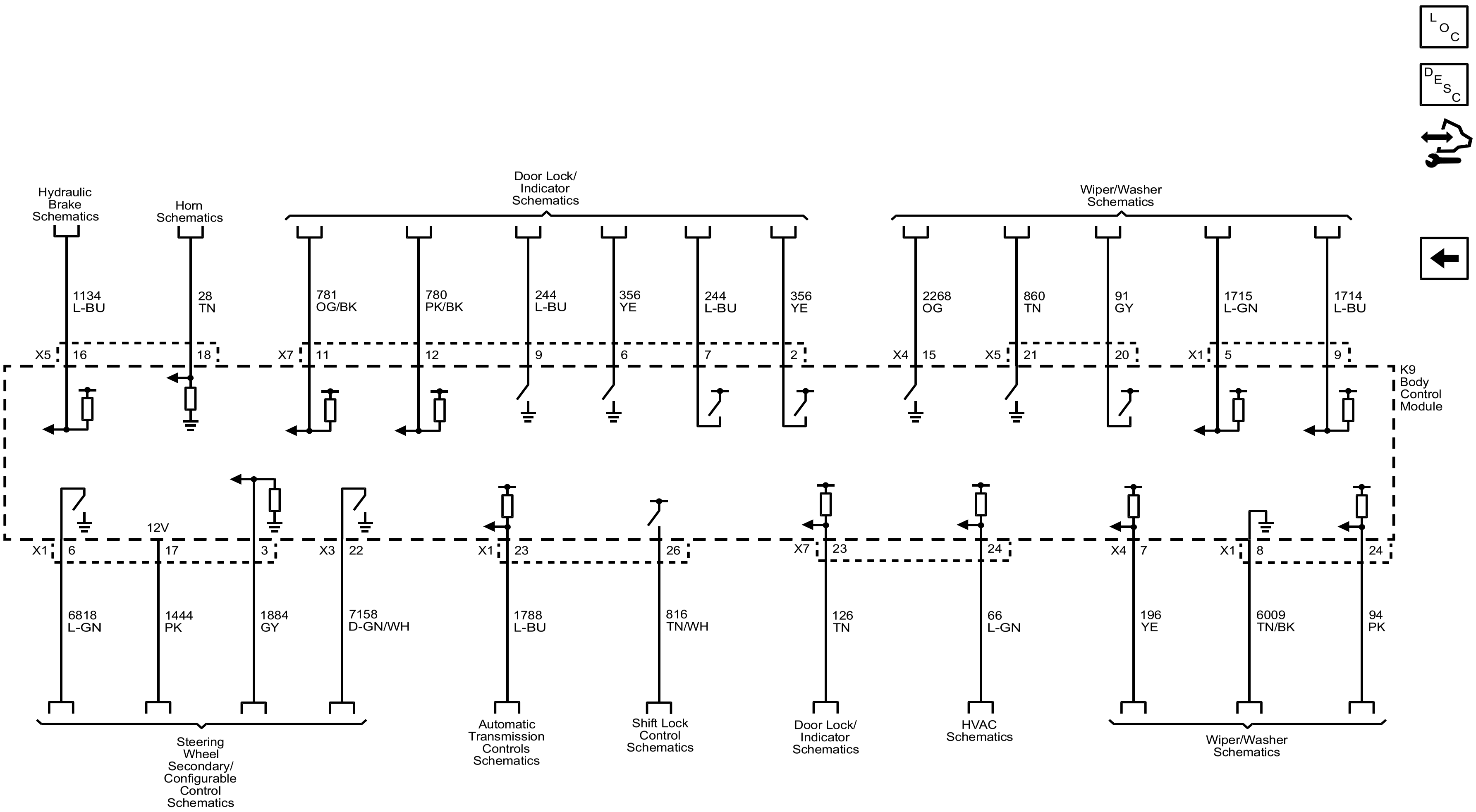

Power Distribution Schematics
1020 PK
530 WH
4 BN
3 PK
X1
2
4
21
14
IGN
5V
K9 Body Control Module
IGN
X5
13
11
X4
19
21
300 OG
43 YE
5985 D-BU
5199 YE
Power Moding Schematics
Data Communication Schematics
Power Moding Schematics
Interior Lights Schematics
149 D-BU/WH
690 GY/BK
-5BV
5BV
X2
5
Door Lock/ Indicator Schematics
245 D-BU
244 L-BU
746 TN/WH
745 GY/BK
5926 L-GN
X6
9
18
8
10
22
K9 Body Control Module
12V
X2
1
18
3
X3
18
11
12
X6
16
14
12
1732 OG
149 D-BU/WH
230 BN/WH
6817 YE
44 D-GN
812 OG/WH
1177 L-GN
1181 YE/BK
1303 PK/BK
Interior Lights Schematics
Interior Lights Dimming Schematics
Door Lock/ Indicator Schematics
4940075

Body Control System Schematics (BCM Inputs and Outputs (2 of 3))


LOC
DESC
Interior Lights Schematics
Headlights/ Daytime Running Lights (DRL) Schematics
328 PU
278 WH
13 L-BU
306 D-GN
103 WH
525 YE
307 YE
544 PU
1970 PK/WH
X2 25
11
8
17
12
X1 18
25
X4 23
X5 23
K9 Body Control Module
X4 16
X2 22
X1 15
16
19
X5 5
X5 6
1969 TN/WH
38 D-BU
663 D-GN
664 TN
111 WH
5065 WH
6311 WH/D-BU
Headlights/ Daytime Running Lights (DRL) Schematics
Exterior Lights Schematics
Cruise Control Schematics
Trailer Connector/ Provision Schematics
Exterior Lights Schematics
5186 OG
5187 YE
UY7
UY7
1314 L-BU/WH
618 YE
619 D-GN
45 D-BU
1320 L-BU
5380 TN
1315 D-BU/WH
X4 13
12
X5 4
1
2
24
X6 2
X3 13
X4 5
K9 Body Control Module

4940076

Body Control System Schematics (BCM Inputs and Outputs (3 of 3))


L O C
D E S C
Hydraulic Brake Schematics
Horn Schematics
Door Lock/ Indicator Schematics
Wiper/Washer Schematics
1134 L-BU
28 TN
781 OG/BK
780 PK/BK
244 L-BU
356 YE
244 L-BU
356 YE
2268 OG
860 TN
91 GY
1715 L-GN
1714 L-BU
X5 16
18
X7 11
12
9
6
7
2
X4 15
X5 21
20
X1 5
9
K9 Body Control Module
X1 6
12V
17
3
X3 22
X1 23
26
X7 23
24
X4 7
X1 8
24
6818 L-GN
1444 PK
1884 GY
7158 D-GN/WH
1788 L-BU
816 TN/WH
126 TN
66 L-GN
196 YE
6009 TN/BK
94 PK
Steering Wheel Secondary/ Configurable Control Schematics
Automatic Transmission Controls Schematics
Shift Lock Control Schematics
Door Lock/ Indicator Schematics
HVAC Schematics
Wiper/Washer Schematics

4940078

Description and Operation

Body Control System Description and Operation

The body control system consists of the body control module (BCM), communications, and various input and outputs. Some inputs, outputs and messages require other modules to interact with the BCM. The BCM also has discrete input and output terminals to control the vehicle's body functions. The BCM is wired to the GMLAN High speed serial data bus and the GMLAN Low speed serial data bus and acts as a gateway between them. If the BCM does not communicate the vehicle will not start due to the inability of the Engine/ Powertrain Control Module (ECM/PCM) and Vehicle Theft Deterrent (VTD) Control Module to communicate without the BCM providing the gateway function.

Power Mode Master

This vehicles BCM functions as the power mode master (PMM). The ignition switch is a low current switch with multiple discrete ignition switch signals to the PMM for determination the power mode that will be sent over the serial data circuits to the other modules that need this information, and so the PMM will activate relays and other direct outputs of the PMM as needed. Refer to *Power Mode Description and Operation on page 6-667* for a complete description of power mode functions.

Serial Data Gateway

The BCM in this vehicle functions as a gateway or translator. The purpose of the gateway is to translate serial data messages between the GMLAN high speed bus and the GMLAN low speed bus for communication between the various modules. The gateway will interact with each network according to that network's transmission protocol.

One example of this necessary communication is the communication between the Engine/Powertrain Control Module (ECM/PCM) which is high speed serial data and Vehicle Theft Deterrent (VTD) Control Module which is low speed serial data. If these modules can not exchange information, the vehicle will not start.

Communication between the BCM and a scan tool can be on the high speed GMLAN network or low speed GMLAN network. If one network is lost, the BCM can still communicate with the scan tool. A lost communication DTC typically is set in modules other than the module with a communication failure.

Body Control Module

The various body control module (BCM) input and output circuits are described in the corresponding functional areas indicated on the BCM electrical schematics. Some BCM functions with the subsystems may be as a gateway only or as an enable for the system. The BCM related systems/subsystems include, but are not limited to the following:

- Antilock brake system (ABS)—Refer to ABS Description and Operation.
- Cruise control system—Refer to Cruise Control Description and Operation.
- Exterior lighting—Refer to *Exterior Lighting Systems Description and Operation on page 2-23*.
- Horn system —Refer to *Horns System Description and Operation on page 2-7*.
- Instrument cluster indicator control—Refer to Instrument Cluster Description and Operation.
- Interior lighting—Refer to *Interior Lighting Systems Description and Operation on page 2-24*.
- Power door lock system —Refer to *Power Door Locks Description and Operation on page 2-37*.
- Rear window defogger system —Refer to *Rear Window Defogger Description and Operation on page 2-6*.
- Remote function actuation (RFA) control—Refer to *Keyless Entry System Description and Operation on page 7-15*.
- Retained accessory power (RAP)—Refer to *Retained Accessory Power Description and Operation on page 6-668*.
- Shift lock control system —Refer to *Automatic Transmission Shift Lock Control Description and Operation on page 8-5*.
- Starting system—Refer to *Starting System Description and Operation on page 4-17*.
- Supplemental inflatable restraint (SIR) system — Refer to Supplemental Inflatable Restraint System Description and Operation.
- Theft deterrent—Refer to Immobilizer Description and Operation.
- Wiper/Washer system functions—Refer to Wiper/ Washer System Description and Operation.

Data Link Communications Description and Operation

Circuit Description

The communication among control modules is performed primarily through the GMLAN high speed serial data circuit and the GMLAN low speed serial data circuits. The modules that need real time communication are attached to the high speed GMLAN network. The body control module (BCM) is the serial data gateway between the networks. The purpose of the gateway is to translate serial data messages between the GMLAN high speed bus and the GMLAN low speed bus. The Local Interconnect Network (LIN) is another serial data communication network used on this vehicle which is dedicated to the remote compass module (RCM) subsystem. Below are more detailed descriptions of the individual networks. The gateway will interact with each network according to that network's transmission protocol. Refer to *Body Control System Description and Operation on page 6-15* for more information about the gateway.

GMLAN High Speed Circuit Description

The data link connector (DLC) allows a scan tool to communicate with the high speed GMLAN serial data circuit. The serial data is transmitted on two twisted wires that allow speed up to 500 Kb/s. The twisted pair is terminated with two 120 ohms resistors. The resistors are used to reduce noise on the High Speed GMLAN bus during normal vehicle operation. The high speed GMLAN is a differential bus. The high speed GMLAN serial data (+) and high speed GMLAN serial data (−)

are driven to opposite extremes from a rest or idle level. The idle level, which is approximately 2.5 volts, is considered recessive transmitted data and is interpreted as a logic 1. Driving the lines to their extremes, adds one volt to the high speed GMLAN serial data (+) and subtracts one volt from the high speed GMLAN serial data (−) wire. This dominant state is interpreted as a logic 0. GMLAN network management supports selective start up and is based on virtual networks. A virtual network is a collection of signals started in response to a vehicle event. The starting of a virtual network signifies that a particular aspect of the vehicles functionality has been requested. A virtual network is supported by virtual devices, which represents a collection of signals owned by a single physical device. So, any physical device can have one or more virtual devices. The signal supervision is the process of determining whether an expected signal is being received or not. Failsofting is the ability to substitute a signal with a default value or a default algorithm, in the absence of a valid signal. Some messages are also interpreted as a heartbeat of a virtual device. If such a signal is lost, the application will set a no communication code against the respective virtual device. This code is displayed on the Tech 2 screen as a code against the physical device. Note: a loss of serial data DTC does not represent a failure of the module that the code is set in.

GMLAN Low Speed Circuit Description

The data link connector (DLC) allows a scan tool to communicate with the low speed GMLAN serial data circuit. The serial data is transmitted over a single wire to the appropriate control modules. The transmission speed for GMLAN low speed is up to 83.33 Kb/s. Under normal vehicle operating conditions, the speed of the bus is 33.33 Kb/s. This protocol produces a simple pulse train sent out over the GMLAN low speed serial data bus. When a module pulls the bus high, 5 volts, this creates a dominant logic state or 0 on the bus. When the bus is pulled low, 0 volts, it is translated as a recessive logic state or 1. To wake the control modules connected to the GMLAN low speed serial data bus, a high voltage wake up pulse is sent out over the bus, the voltage level of the pules is +10 volts. Modules connected to the GMLAN low speed bus can be part of a virtual network as described in the previous paragraph. Most modules on the GMLAN low speed serial data bus are connected to the bus in a parallel configuration. Refer to the schematics to determine modules that are not in parallel

Local Interconnect Network (LIN) Description

The remote compass module (RCM) communicates with the BCM utilizing a single wire LIN communication link. The BCM is the gateway for the GMLAN network. All data is communicated on the LIN bus, therefore there are only 3 circuits to the RCM as follows:

- Ground
- LIN bus
- Voltage

Data Link Connector (DLC)

The data link connector (DLC) is a standardized 16-cavity connector. Connector design and location is dictated by an industry wide standard, and provides the following:

- Pin 1 GMLAN low speed communications terminal
- Pin 4 Scan tool power ground terminal
- Pin 5 Common signal ground terminal
- Pin 6 High speed GMLAN serial data bus (+) terminal
- Pin 14 High speed GMLAN serial data bus (−) terminal
- Pin 16 Scan tool power, battery positive voltage terminal

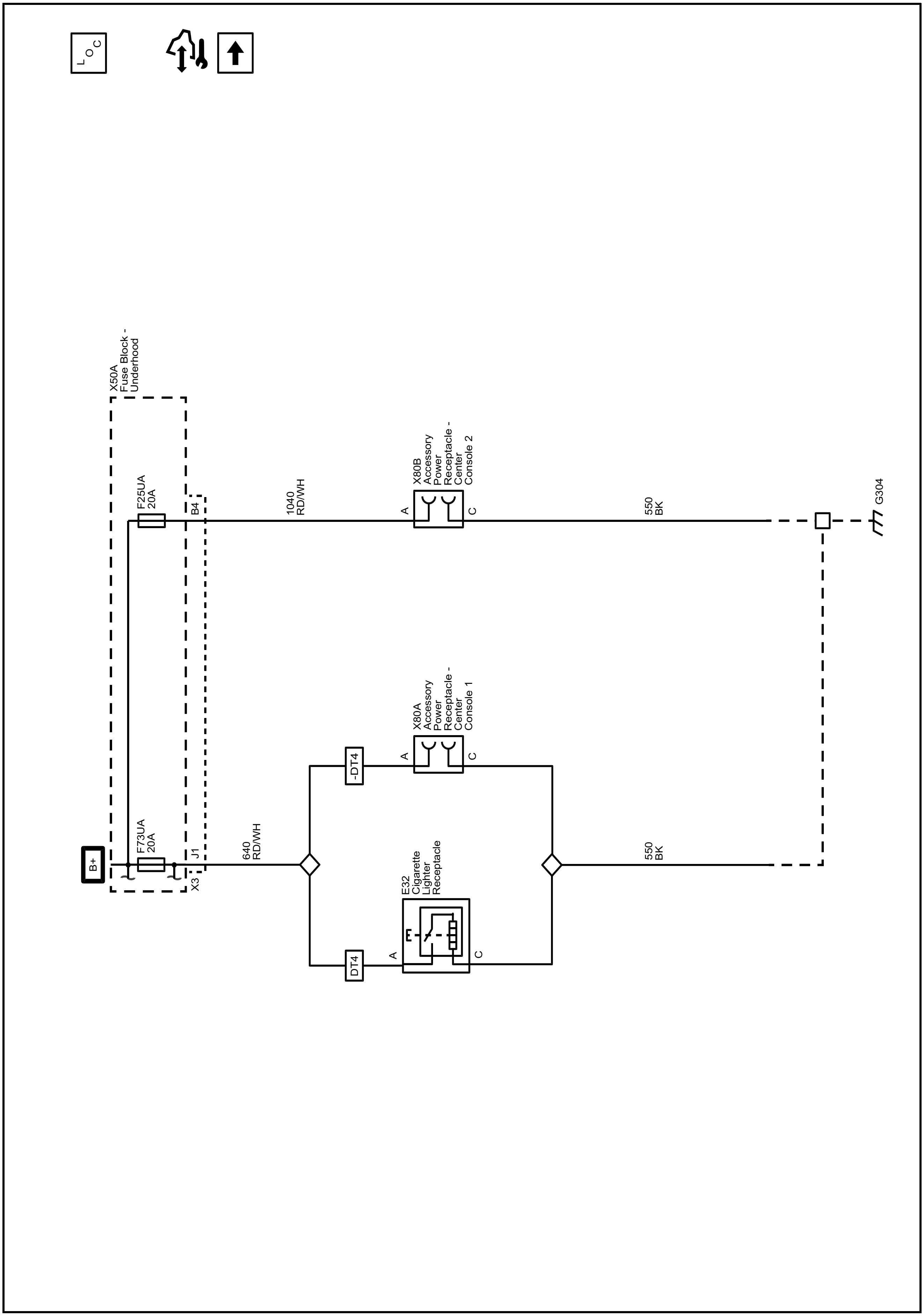
Serial Data Reference

The scan tool communicates over the various busses on the vehicle. When a scan tool is installed on a vehicle, the scan tool will try to communicate with every module that could be optioned into the vehicle. If an option is not installed on the vehicle, the scan tool will display No Comm for that options specific control module. In order to avert misdiagnoses of No Communication with a specific module, refer to Data Link References for a list of modules, the bus they communicate with, and the RPO codes for a specific module.

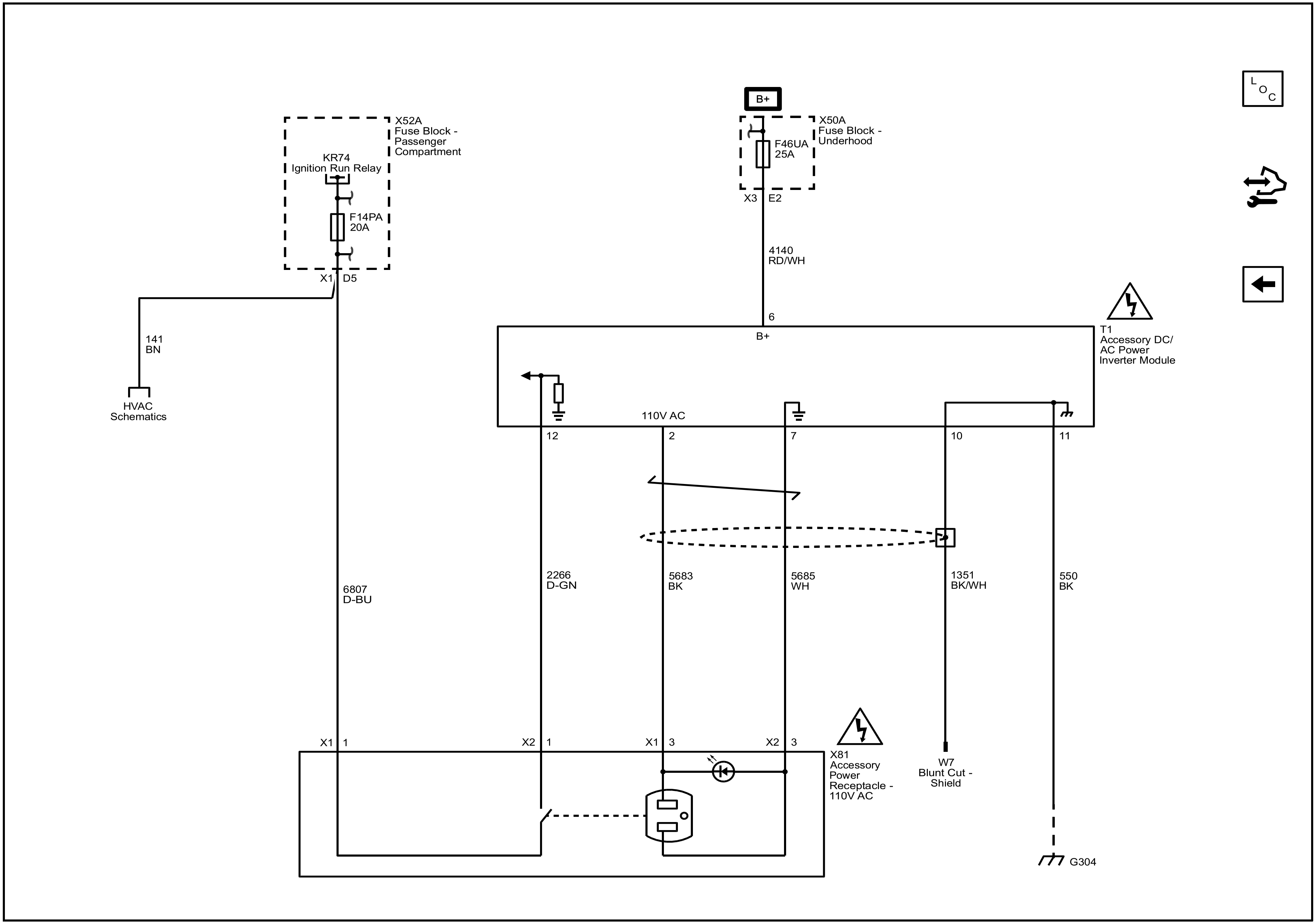
Power Outlets

Schematic and Routing Diagrams

Cigar Lighter/Power Outlet Schematics (Cigar Lighter/Power Outlet)


4940081
LOC
X50A
Fuse Block - Underhood
F25UA
20A
B4
1040
RD/WH
A
X80B
Accessory Power Receptacle - Center Console 2
C
550
BK
G304
B+
F73UA
20A
J1
X3
640
RD/WH
-DT4
A
X80A
Accessory Power Receptacle - Center Console 1
C
550
BK
E32
Cigarette Lighter Receptacle
DT4
A
C

Cigar Lighter/Power Outlet Schematics (110V AC Outlet (KI4))


X52A
Fuse Block - Passenger Compartment
KR74
Ignition Run Relay
F14PA
20A
X1
D5
141
BN
HVAC Schematics
B+
X50A
Fuse Block - Underhood
F46UA
25A
X3
E2
4140
RD/WH
6
B+
T1
Accessory DC/AC Power Inverter Module
110V AC
12
2
7
10
11
6807
D-BU
2266
D-GN
5683
BK
5685
WH
1351
BK/WH
550
BK
X1 1
X2 1
X1 3
X2 3
X81
Accessory Power Receptacle - 110V AC
W7
Blunt Cut - Shield
G304
L O C
4940082

Description and Operation

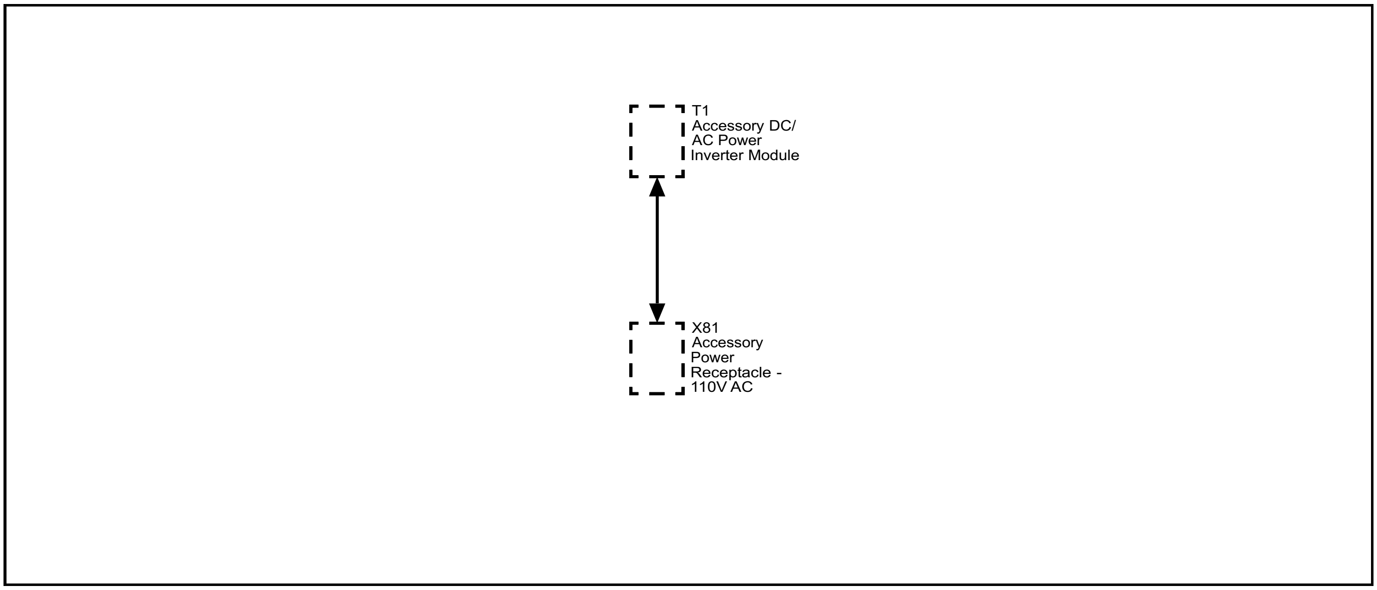
Power Outlets Description and Operation

12 Volt Power Outlet Receptacle Description and Operation

The 12 V accessory power receptacles are supplied B+ all the time.

110 Volt Power Outlet Receptacle System Description

Power Outlets Block Diagram


T1
Accessory DC/AC Power Inverter Module
X81
Accessory Power Receptacle - 110V AC
3403851

The alternating current (AC) accessory power outlet system consists of the accessory DC/AC power inverter module and the accessory power receptacle – 110 V AC. The accessory DC/AC power inverter module converts 12 V direct current (DC) battery power to 110 V at 60 Hertz (Hz) AC power to operate AC powered devices. The accessory DC/AC power inverter module provides up to 150 watts of power. The accessory power receptacle – 110 V AC provides the usual connection for AC powered devices.

110 Volt Power Outlet Receptacle System Operation

The accessory DC/AC power inverter module receives fuse protected battery voltage and is connected to the 12 V electrical system ground. The accessory power receptacle – 110 V AC has an internal switch, that detects when an AC powered device is plugged into the outlet. When the ignition is ON, and an AC powered device is plugged into the accessory power receptacle – 110 V AC, the normally open switch in the accessory power receptacle – 110 V AC, closes. When the accessory DC/AC power inverter module detects the voltage from the accessory power receptacle – 110 V AC switch, the inverter module begins to supply 110 V AC to the accessory power receptacle – 110 V AC after a 1.5 second delay. The accessory AC power system is protected against circuit overload and circuit shorts to ground.

110 Volt Power Outlet Receptacle Isolation Fault Protection

The accessory DC/AC power inverter module contains a ground fault circuit interrupter (GFCI). GFCI monitors the 110 V circuit for a short to vehicle chassis ground. If a 110 V AC short to ground is detected, the accessory DC/AC power inverter module will turn OFF. The module remains OFF, until the AC powered device is unplugged from the outlet, and then plugged into the outlet after a 3 second delay.

110 Volt Power Outlet Receptacle Overload Shutdown

The accessory DC/AC power inverter module will turn OFF if the current in the 110 V circuit is greater than 3.8 A for 1 second, or 2.5 A for 10 seconds. The module will turn ON again, when the AC powered device is unplugged from the outlet, and then plugged into the outlet after a 3 second delay.

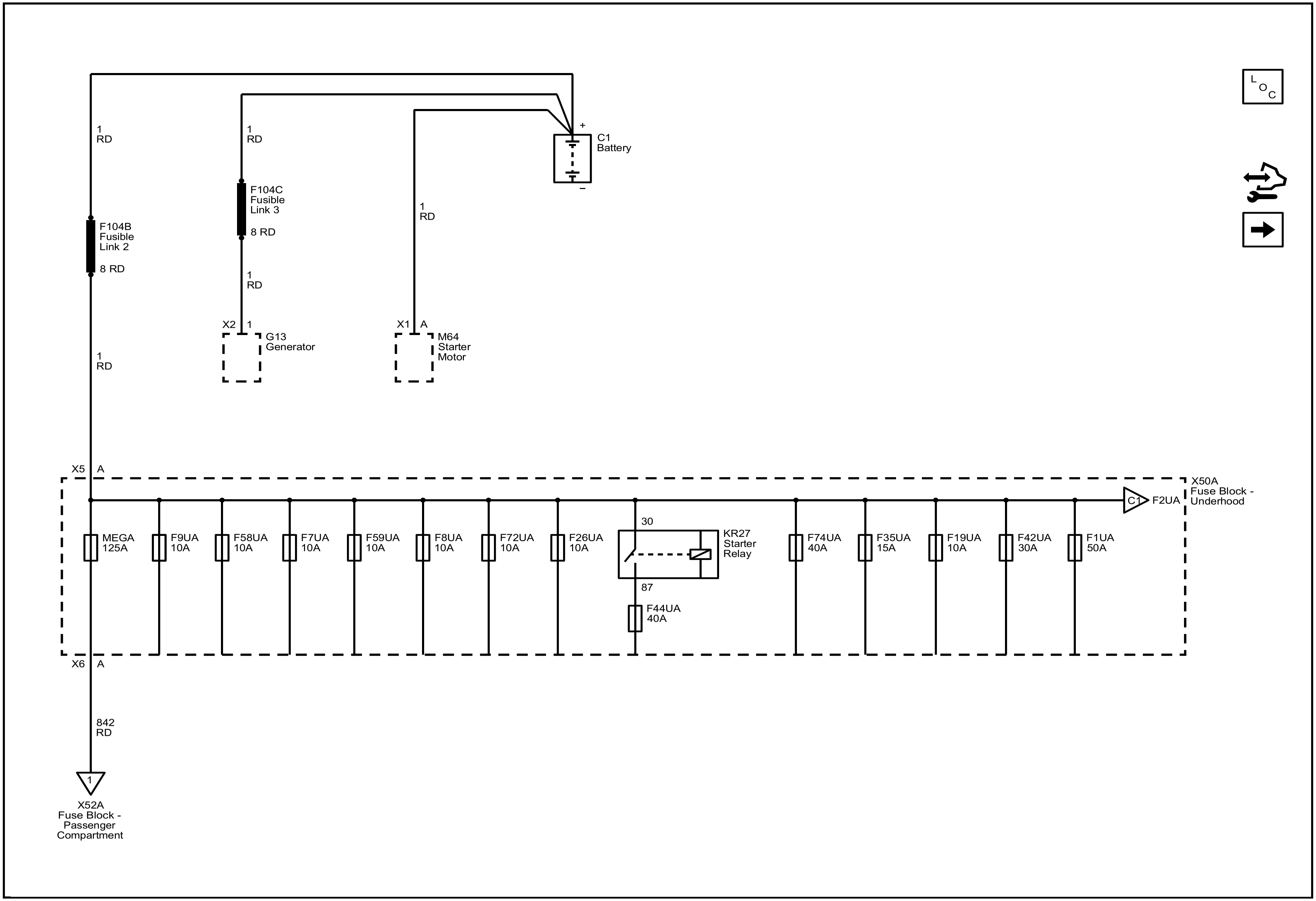
110 Volt Power Outlet Receptacle Internal Shutdown

The accessory DC/AC power inverter module will turn OFF if the B+ supply voltage is greater than 16.5 V or less than 11 V. The module will also turn OFF if the device temperature is greater than 85°C (185°F). The module will turn ON again, after the shutdown condition is corrected, and the AC powered device is unplugged from the outlet, and then plugged into the outlet.

Wiring Systems and Power Management

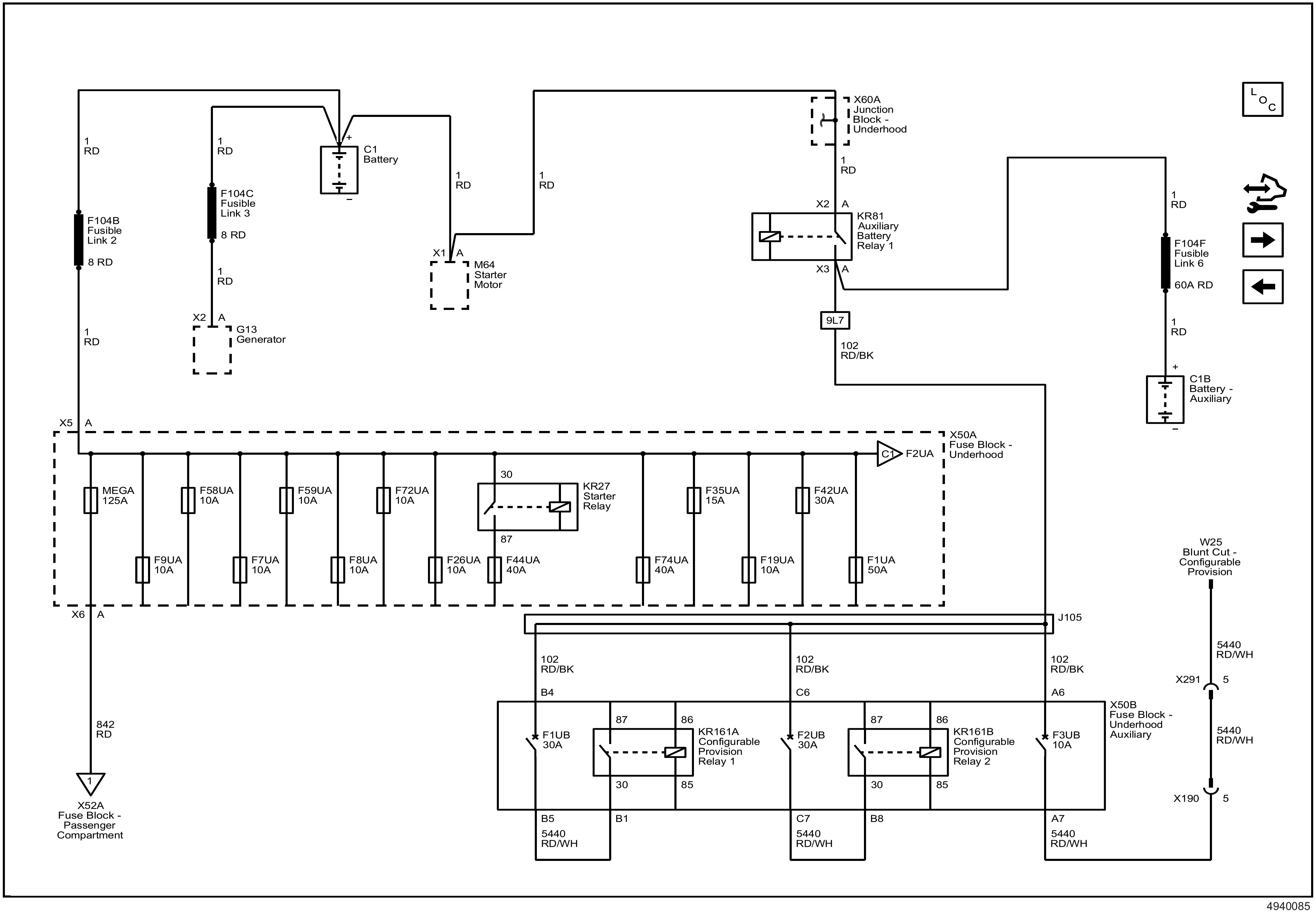
Schematic and Routing Diagrams

Power Distribution Schematics (Fusible Links and B+ Bus - Underhood Fuse Block (Gas with One Battery, 1 of 3))


+
C1
Battery
–
1
RD
1
RD
F104B
Fusible
Link 2
8 RD
1
RD
F104C
Fusible
Link 3
8 RD
1
RD
1
RD
X2 1
G13
Generator
X1 A
M64
Starter
Motor
X5 A
X50A
Fuse Block -
Underhood
C1
F2UA
MEGA
125A
F9UA
10A
F58UA
10A
F7UA
10A
F59UA
10A
F8UA
10A
F72UA
10A
F26UA
10A
30
KR27
Starter
Relay
87
F44UA
40A
F74UA
40A
F35UA
15A
F19UA
10A
F42UA
30A
F1UA
50A
X6 A
842
RD
1
X52A
Fuse Block -
Passenger
Compartment

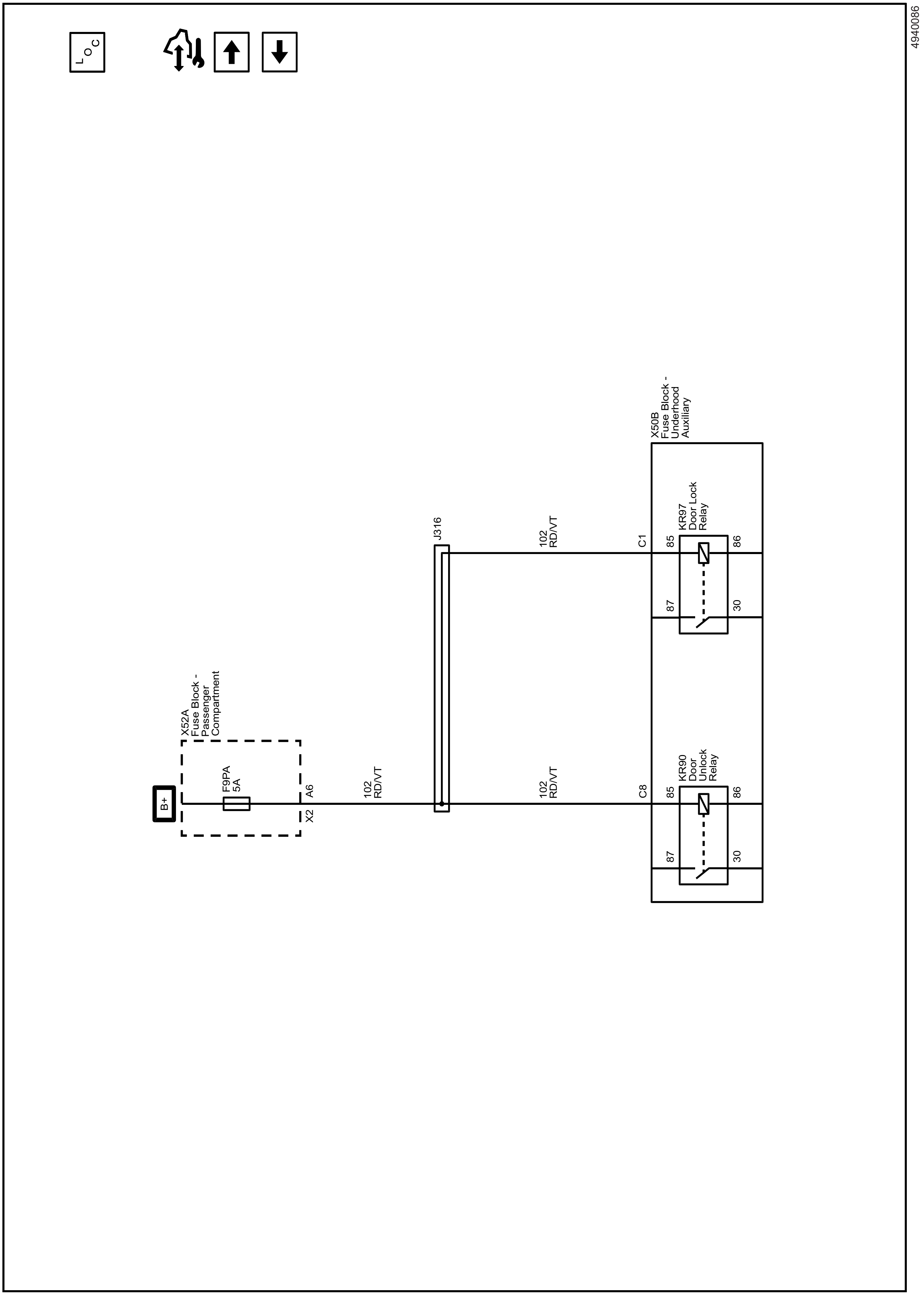
4940083

Power Distribution Schematics (Fusible Links and B+ Bus - Underhood Fuse Block (Gas with Two Batteries, 1 of 3) and Fuse Block - Underhood Auxiliary (9L7))

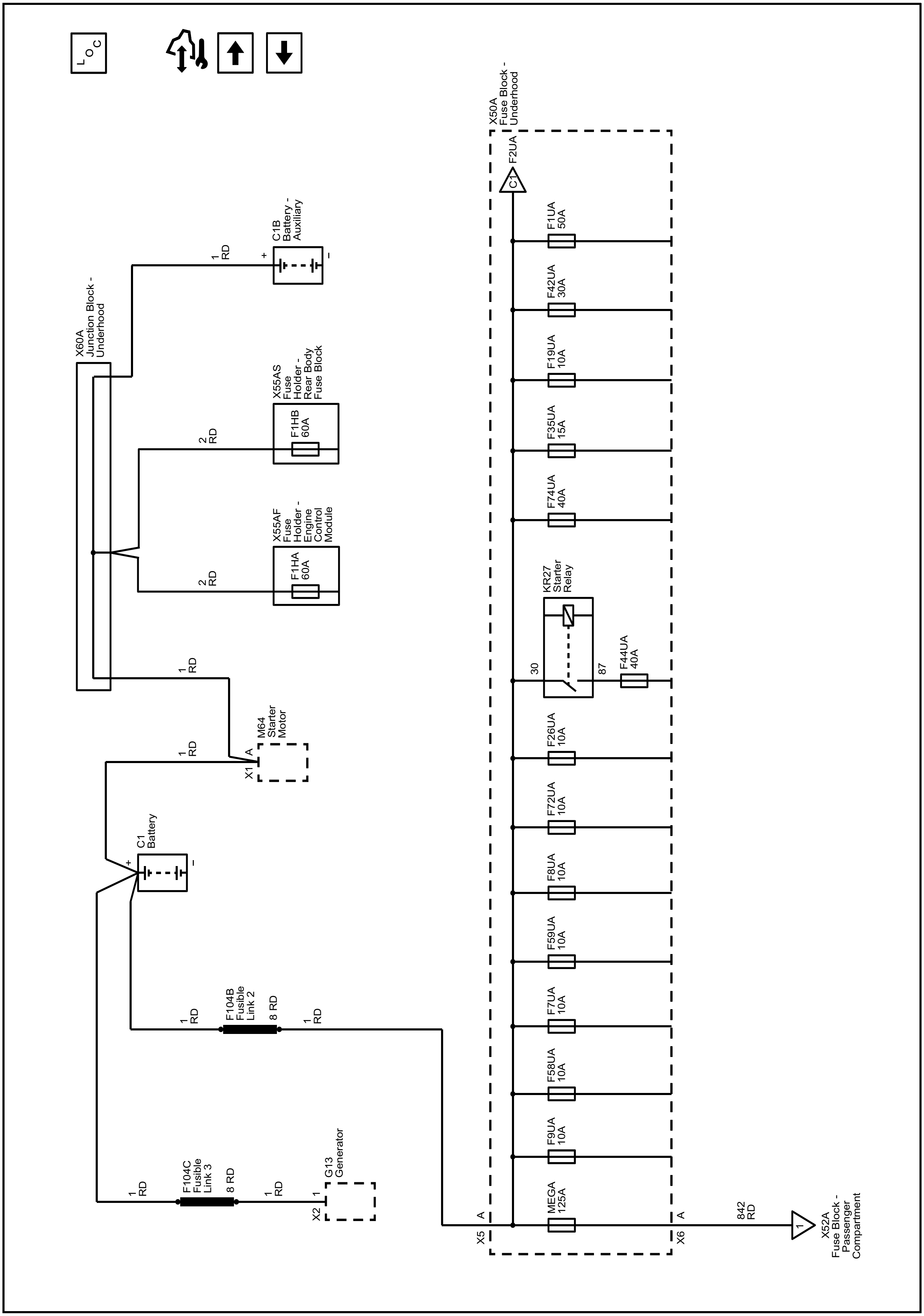


1 RD
F104B Fusible Link 2
8 RD
1 RD
F104C Fusible Link 3
8 RD
1 RD
X2 A
G13 Generator
C1 Battery
+
−
1 RD
1 RD
X1 A
M64 Starter Motor
X60A Junction Block - Underhood
1 RD
X2 A
KR81 Auxiliary Battery Relay 1
X3 A
9L7
102 RD/BK
1 RD
F104F Fusible Link 6
60A RD
1 RD
C1B Battery - Auxiliary
X5 A
X50A Fuse Block - Underhood
C1 F2UA
MEGA 125A
F58UA 10A
F59UA 10A
F72UA 10A
30
KR27 Starter Relay
87
F35UA 15A
F42UA 30A
F9UA 10A
F7UA 10A
F8UA 10A
F26UA 10A
F44UA 40A
F74UA 40A
F19UA 10A
F1UA 50A
X6 A
842 RD
1
X52A Fuse Block - Passenger Compartment
J105
102 RD/BK
B4
F1UB 30A
87
86
KR161A Configurable Provision Relay 1
30
85
B5
5440 RD/WH
B1
102 RD/BK
C6
F2UB 30A
87
86
KR161B Configurable Provision Relay 2
30
85
C7
5440 RD/WH
B8
102 RD/BK
A6
F3UB 10A
X50B Fuse Block - Underhood Auxiliary
A7
5440 RD/WH
W25 Blunt Cut - Configurable Provision
5440 RD/WH
X291 5
5440 RD/WH
X190 5
4940085

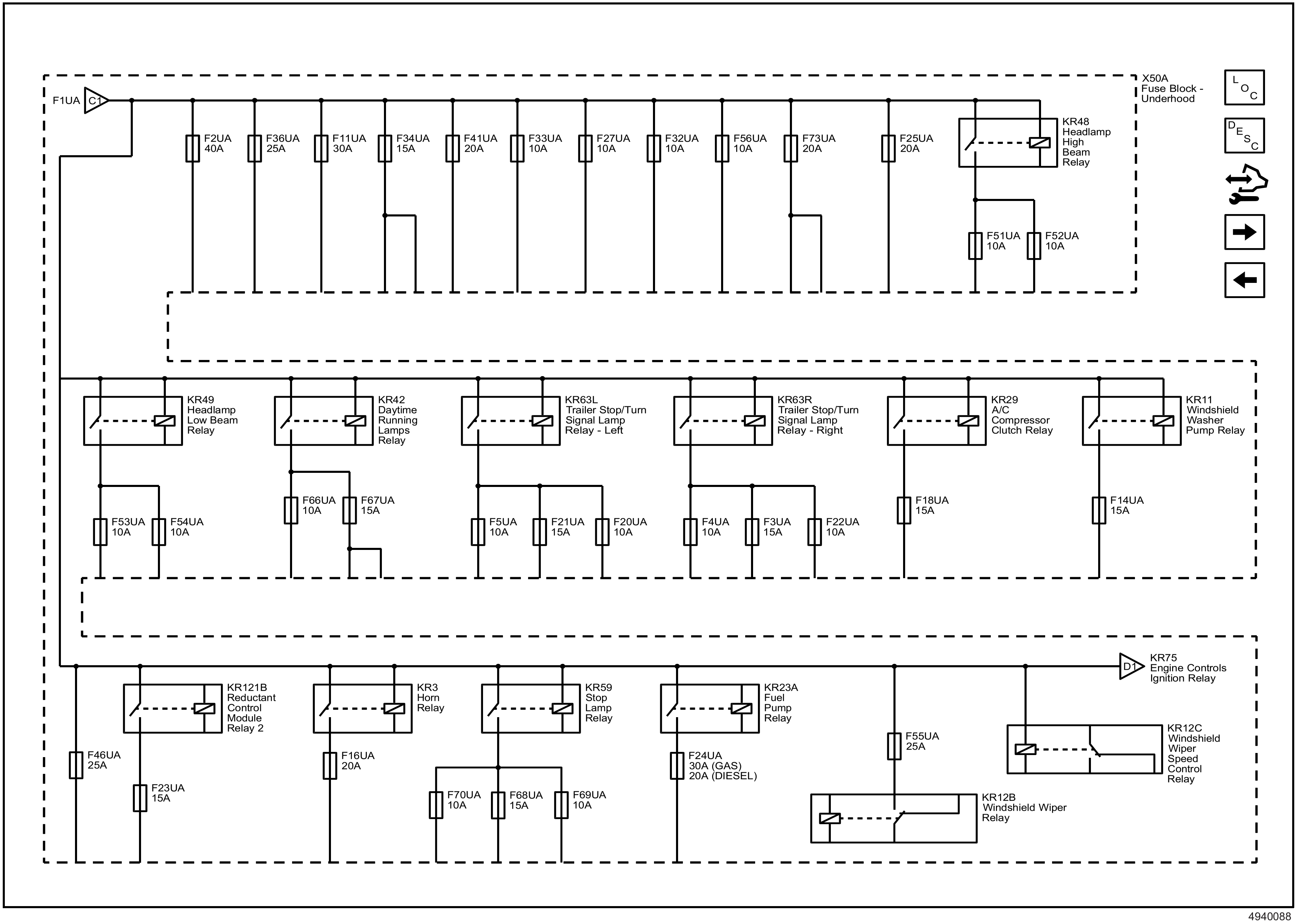
Power Distribution Schematics (Fuse Block - Underhood Auxiliary (AU3 with WRF))


4940086
B+
X52A
Fuse Block -
Passenger
Compartment
F9PA
5A
A6
X2
102
RD/VT
J316
102
RD/VT
C1
C8
X50B
Fuse Block -
Underhood
Auxiliary
KR97
Door Lock
Relay
KR90
Door
Unlock
Relay
85
86
87
30

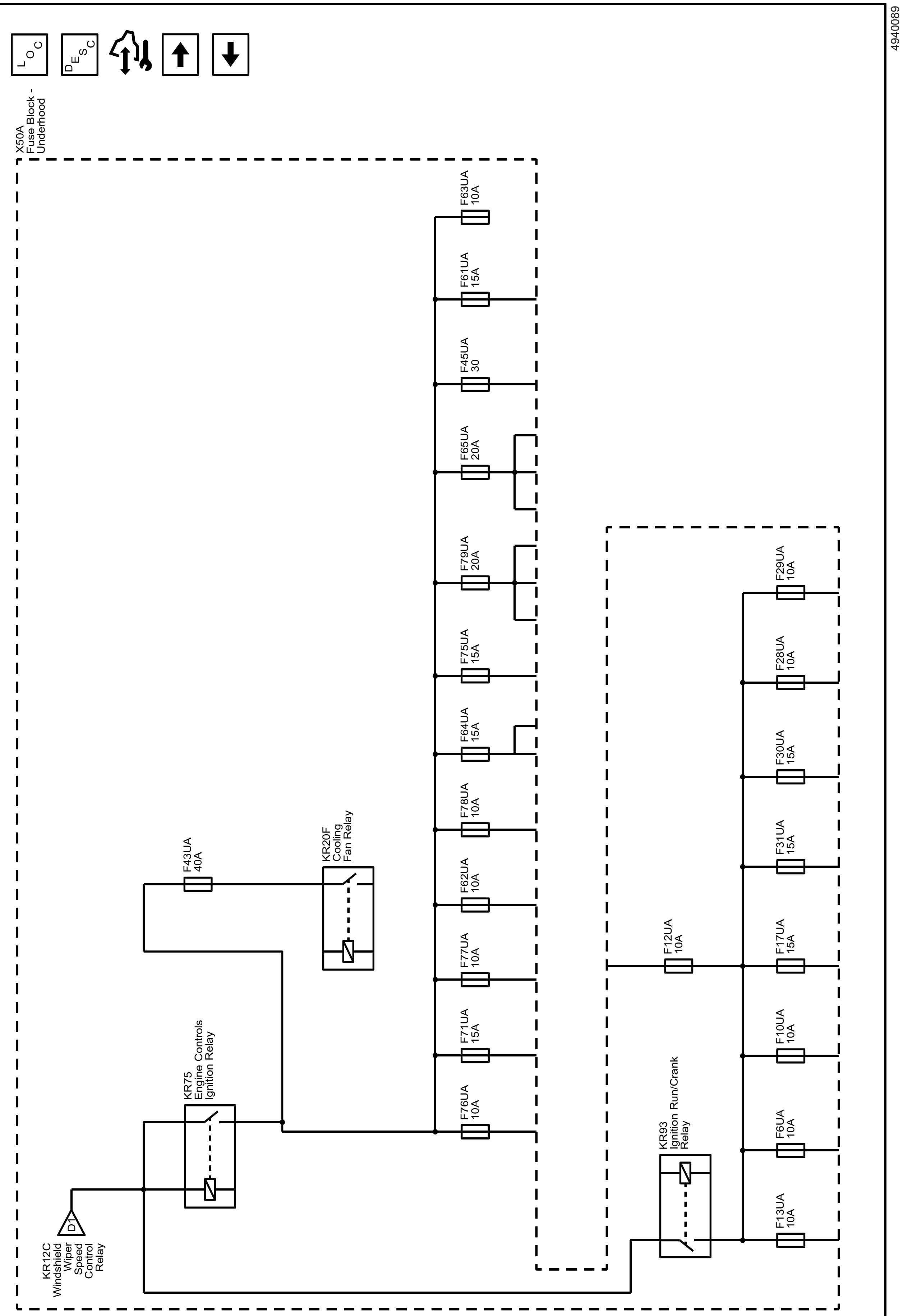
Power Distribution Schematics (Fusible Links and B+ Bus - Underhood Fuse Block (Diesel, 1 of 3))


4940087
L O C
X60A Junction Block - Underhood
1 RD
C1B Battery - Auxiliary
+
-
X55AS Fuse Holder - Rear Body Fuse Block
F1HB 60A
2 RD
X55AF Fuse Holder - Engine Control Module
F1HA 60A
2 RD
1 RD
M64 Starter Motor
X1 A
1 RD
C1 Battery
+
-
1 RD
F104B Fusible Link 2
8 RD
1 RD
1 RD
F104C Fusible Link 3
8 RD
1 RD
G13 Generator
X2 1
X50A Fuse Block - Underhood
C1 F2UA
F1UA 50A
F42UA 30A
F19UA 10A
F35UA 15A
F74UA 40A
KR27 Starter Relay
30
87
F44UA 40A
F26UA 10A
F72UA 10A
F8UA 10A
F59UA 10A
F7UA 10A
F58UA 10A
F9UA 10A
MEGA 125A
X5 A
X6 A
842 RD
1
X52A Fuse Block - Passenger Compartment

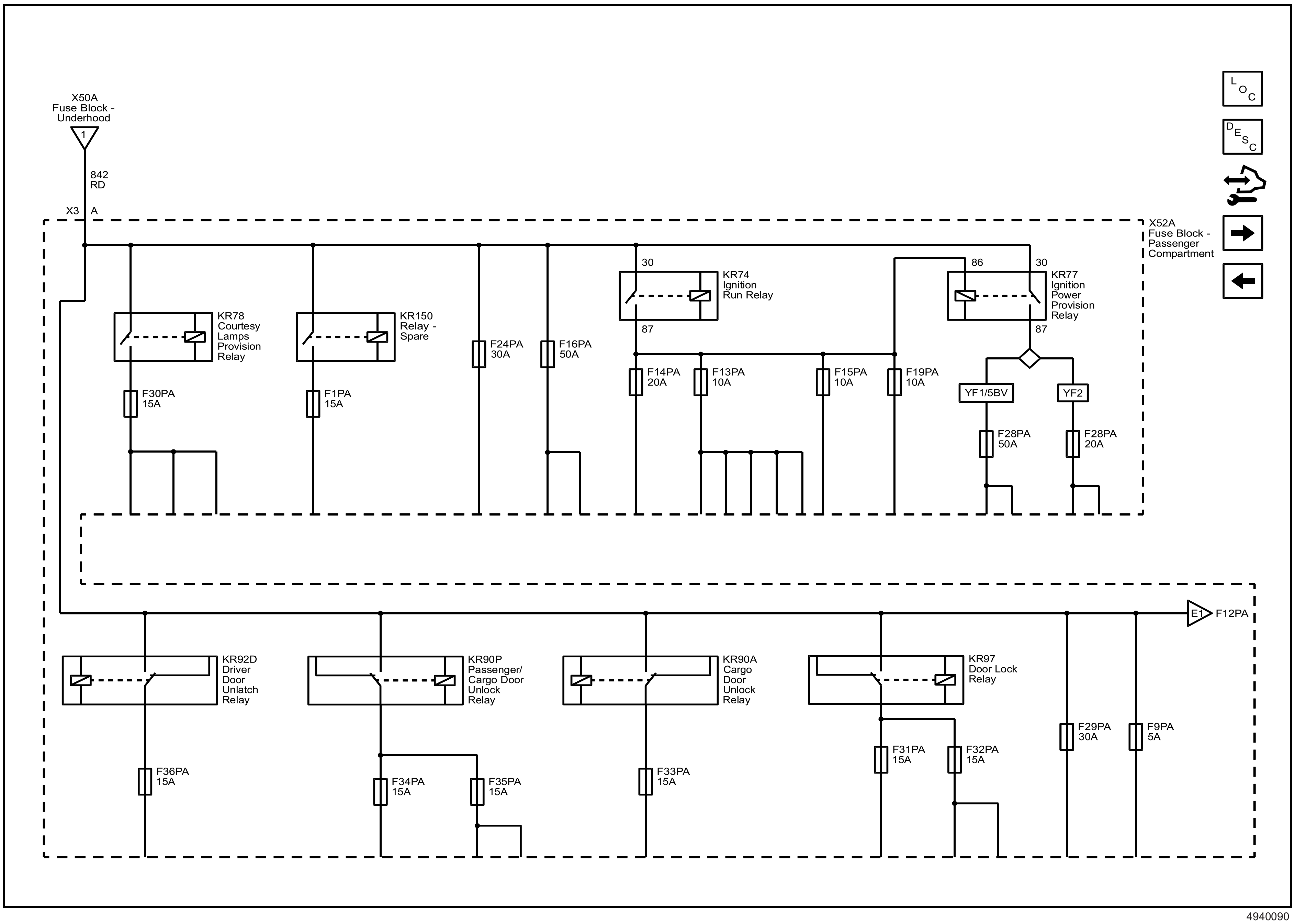
Power Distribution Schematics (B+ Bus - Underhood Fuse Block (2 of 3))


X50A
Fuse Block - Underhood
F1UA
C1
F2UA 40A
F36UA 25A
F11UA 30A
F34UA 15A
F41UA 20A
F33UA 10A
F27UA 10A
F32UA 10A
F56UA 10A
F73UA 20A
F25UA 20A
KR48 Headlamp High Beam Relay
F51UA 10A
F52UA 10A
KR49 Headlamp Low Beam Relay
F53UA 10A
F54UA 10A
KR42 Daytime Running Lamps Relay
F66UA 10A
F67UA 15A
KR63L Trailer Stop/Turn Signal Lamp Relay - Left
F5UA 10A
F21UA 15A
F20UA 10A
KR63R Trailer Stop/Turn Signal Lamp Relay - Right
F4UA 10A
F3UA 15A
F22UA 10A
KR29 A/C Compressor Clutch Relay
F18UA 15A
KR11 Windshield Washer Pump Relay
F14UA 15A
KR75 Engine Controls Ignition Relay
D1
F46UA 25A
KR121B Reductant Control Module Relay 2
F23UA 15A
KR3 Horn Relay
F16UA 20A
KR59 Stop Lamp Relay
F70UA 10A
F68UA 15A
F69UA 10A
KR23A Fuel Pump Relay
F24UA 30A (GAS) 20A (DIESEL)
F55UA 25A
KR12B Windshield Wiper Relay
KR12C Windshield Wiper Speed Control Relay
L O C
D E S C
4940088

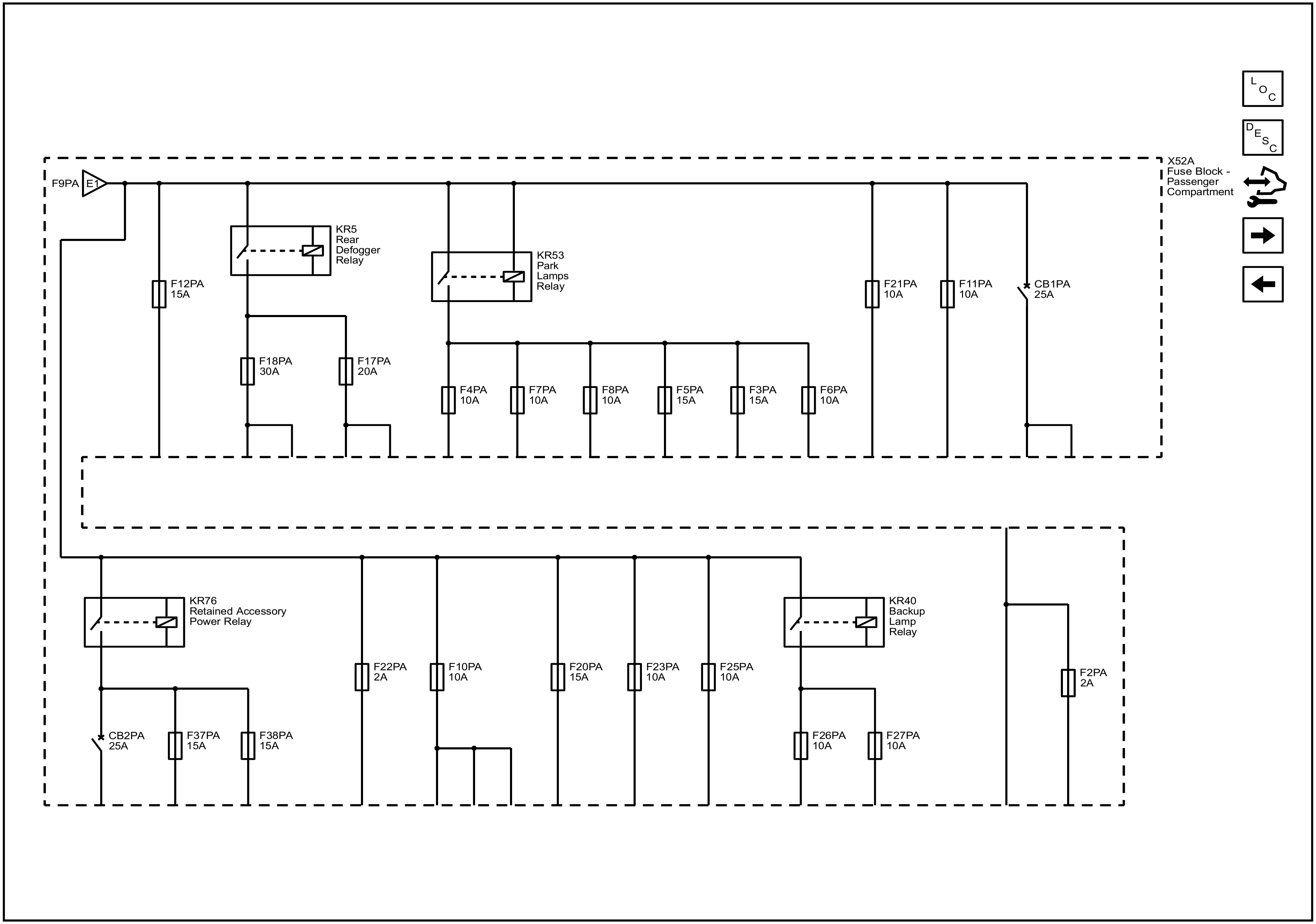
Power Distribution Schematics (B+ Bus - Underhood Fuse Block (3 of 3))


LOC
DESC
4940089
X50A Fuse Block - Underhood
F63UA 10A
F61UA 15A
F45UA 30
F65UA 20A
F79UA 20A
F75UA 15A
F64UA 15A
F78UA 10A
F62UA 10A
F77UA 10A
F71UA 15A
F76UA 10A
F43UA 40A
KR20F Cooling Fan Relay
KR75 Engine Controls Ignition Relay
KR12C Windshield Wiper Speed Control Relay
D1
F12UA 10A
KR93 Ignition Run/Crank Relay
F29UA 10A
F28UA 10A
F30UA 15A
F31UA 15A
F17UA 15A
F10UA 10A
F6UA 10A
F13UA 10A

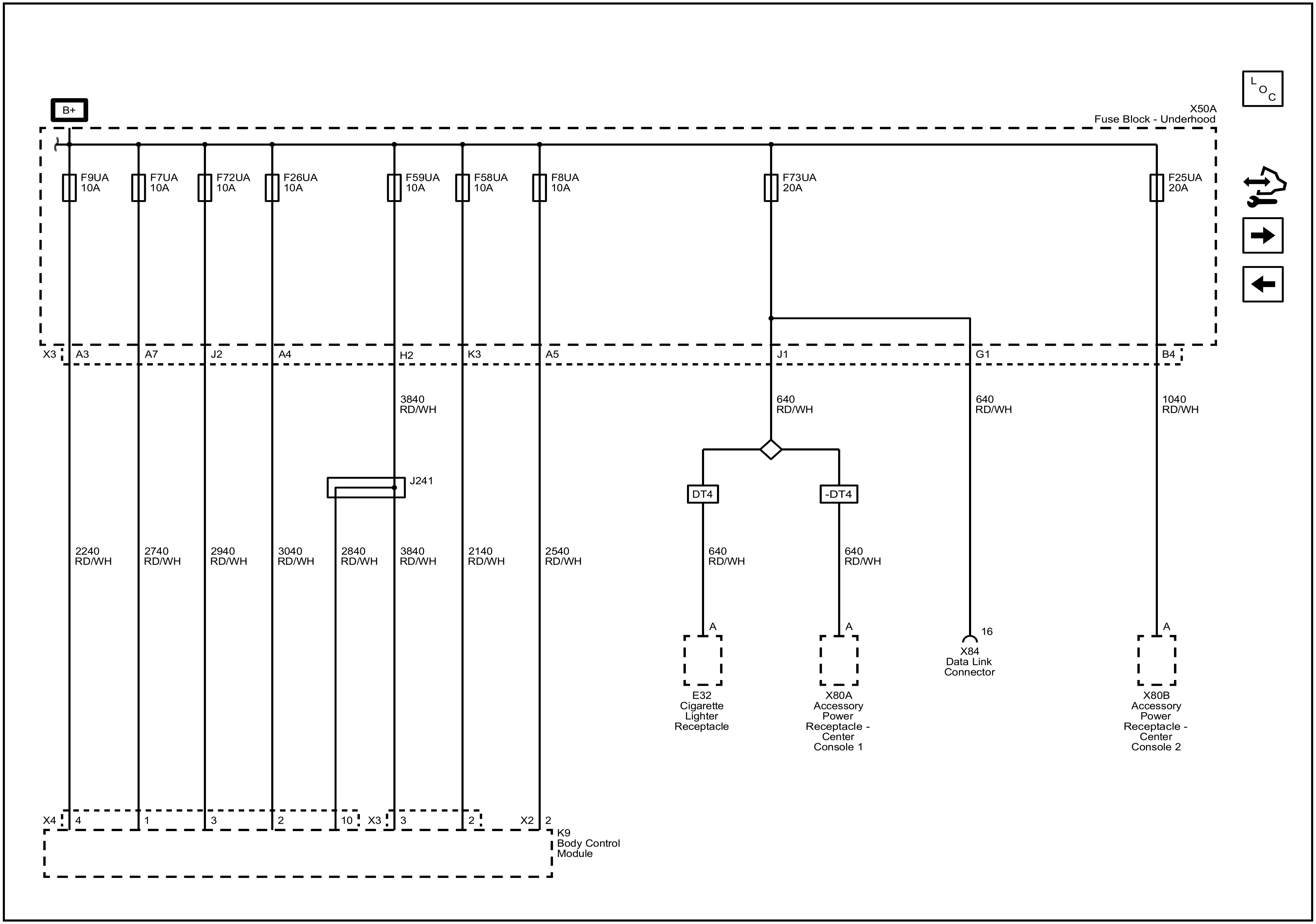
Power Distribution Schematics (B+ Bus - Passenger Compartment Fuse Block (1 of 2))


X50A
Fuse Block - Underhood
1
842
RD
X3
A
X52A
Fuse Block - Passenger Compartment
KR78
Courtesy Lamps Provision Relay
F30PA
15A
KR150
Relay - Spare
F1PA
15A
F24PA
30A
F16PA
50A
30
KR74
Ignition Run Relay
87
F14PA
20A
F13PA
10A
F15PA
10A
F19PA
10A
86
30
KR77
Ignition Power Provision Relay
87
YF1/5BV
YF2
F28PA
50A
F28PA
20A
E1
F12PA
KR92D
Driver Door Unlatch Relay
F36PA
15A
KR90P
Passenger/ Cargo Door Unlock Relay
F34PA
15A
F35PA
15A
KR90A
Cargo Door Unlock Relay
F33PA
15A
KR97
Door Lock Relay
F31PA
15A
F32PA
15A
F29PA
30A
F9PA
5A
LOC
DESC
4940090

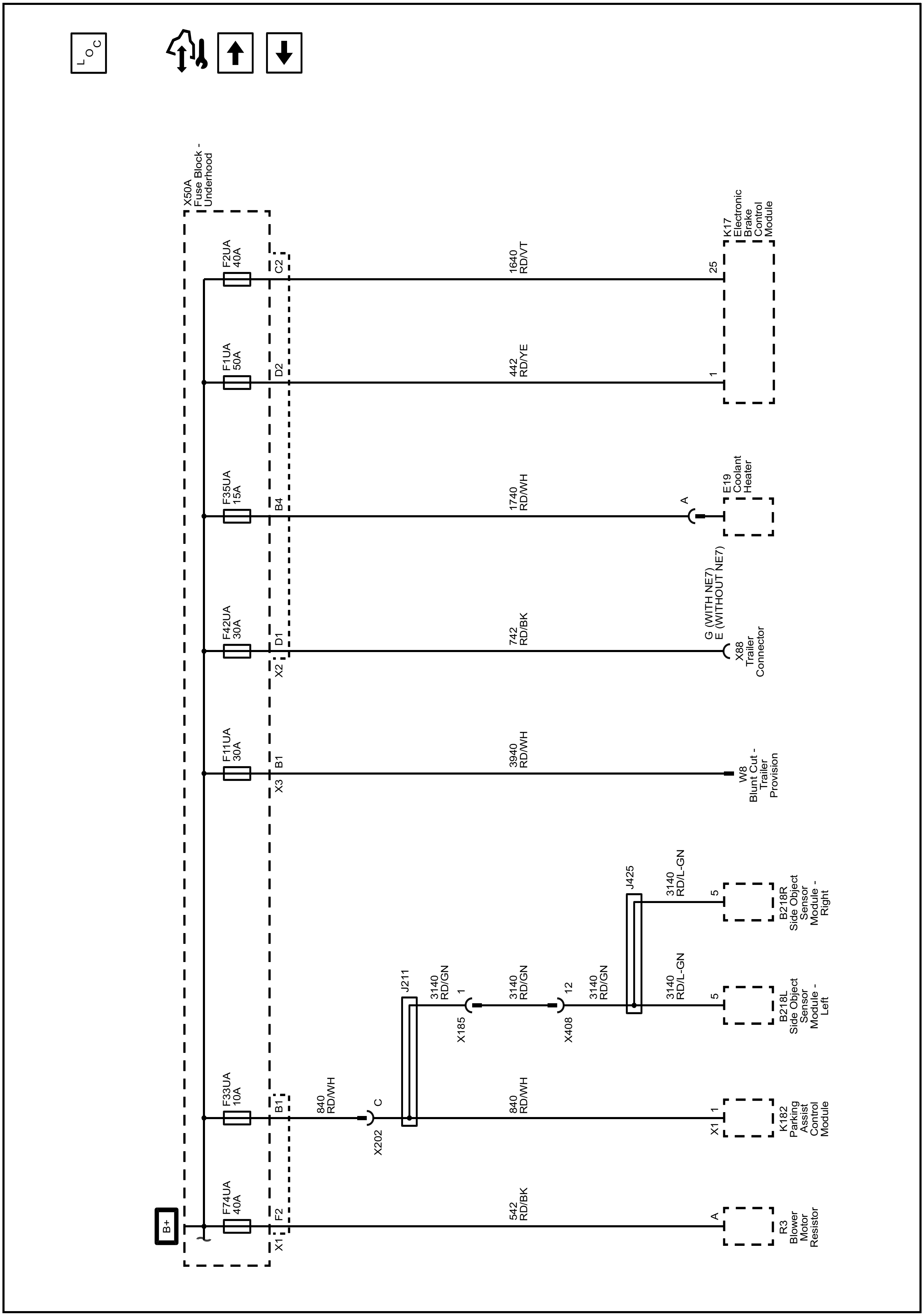
Power Distribution Schematics (B+ Bus - Passenger Compartment Fuse Block (2 of 2))


LOC
DESC
X52A
Fuse Block -
Passenger
Compartment
F9PA
E1
F12PA
15A
KR5
Rear
Defogger
Relay
F18PA
30A
F17PA
20A
KR53
Park
Lamps
Relay
F4PA
10A
F7PA
10A
F8PA
10A
F5PA
15A
F3PA
15A
F6PA
10A
F21PA
10A
F11PA
10A
CB1PA
25A
KR76
Retained Accessory
Power Relay
CB2PA
25A
F37PA
15A
F38PA
15A
F22PA
2A
F10PA
10A
F20PA
15A
F23PA
10A
F25PA
10A
KR40
Backup
Lamp
Relay
F26PA
10A
F27PA
10A
F2PA
2A
4940091

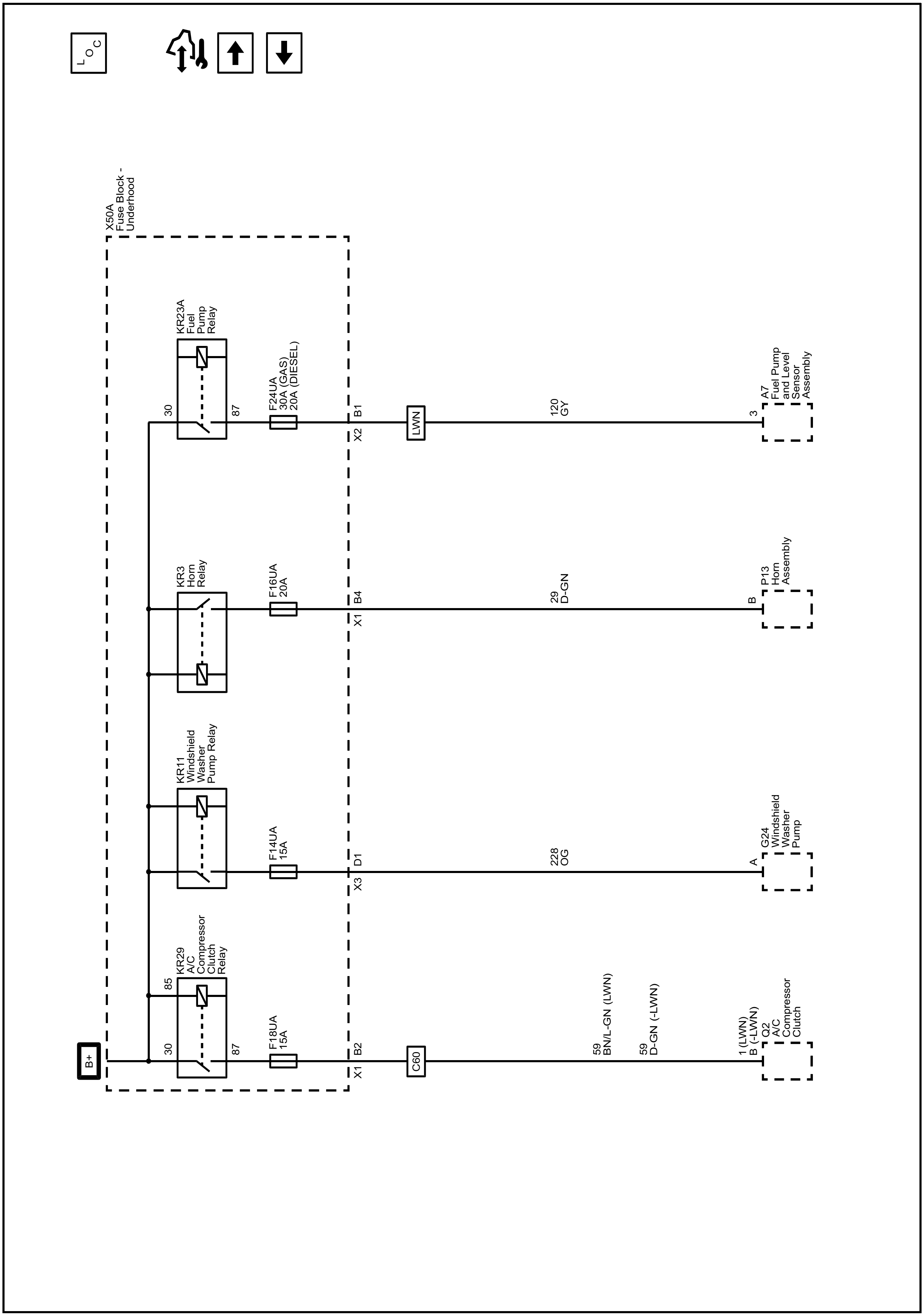
Power Distribution Schematics (Fuses F7UA, F8UA, F9UA, F25UA, F26A, F58UA, F59UA, F72UA, and F73UA)


L O C
B+
X50A
Fuse Block - Underhood
F9UA 10A
F7UA 10A
F72UA 10A
F26UA 10A
F59UA 10A
F58UA 10A
F8UA 10A
F73UA 20A
F25UA 20A
X3
A3
A7
J2
A4
H2
K3
A5
J1
G1
B4
3840 RD/WH
640 RD/WH
640 RD/WH
1040 RD/WH
J241
DT4
-DT4
2240 RD/WH
2740 RD/WH
2940 RD/WH
3040 RD/WH
2840 RD/WH
3840 RD/WH
2140 RD/WH
2540 RD/WH
640 RD/WH
640 RD/WH
A
A
16
A
E32 Cigarette Lighter Receptacle
X80A Accessory Power Receptacle - Center Console 1
X84 Data Link Connector
X80B Accessory Power Receptacle - Center Console 2
X4
4
1
3
2
10
X3
3
2
X2
2
K9 Body Control Module
4940092

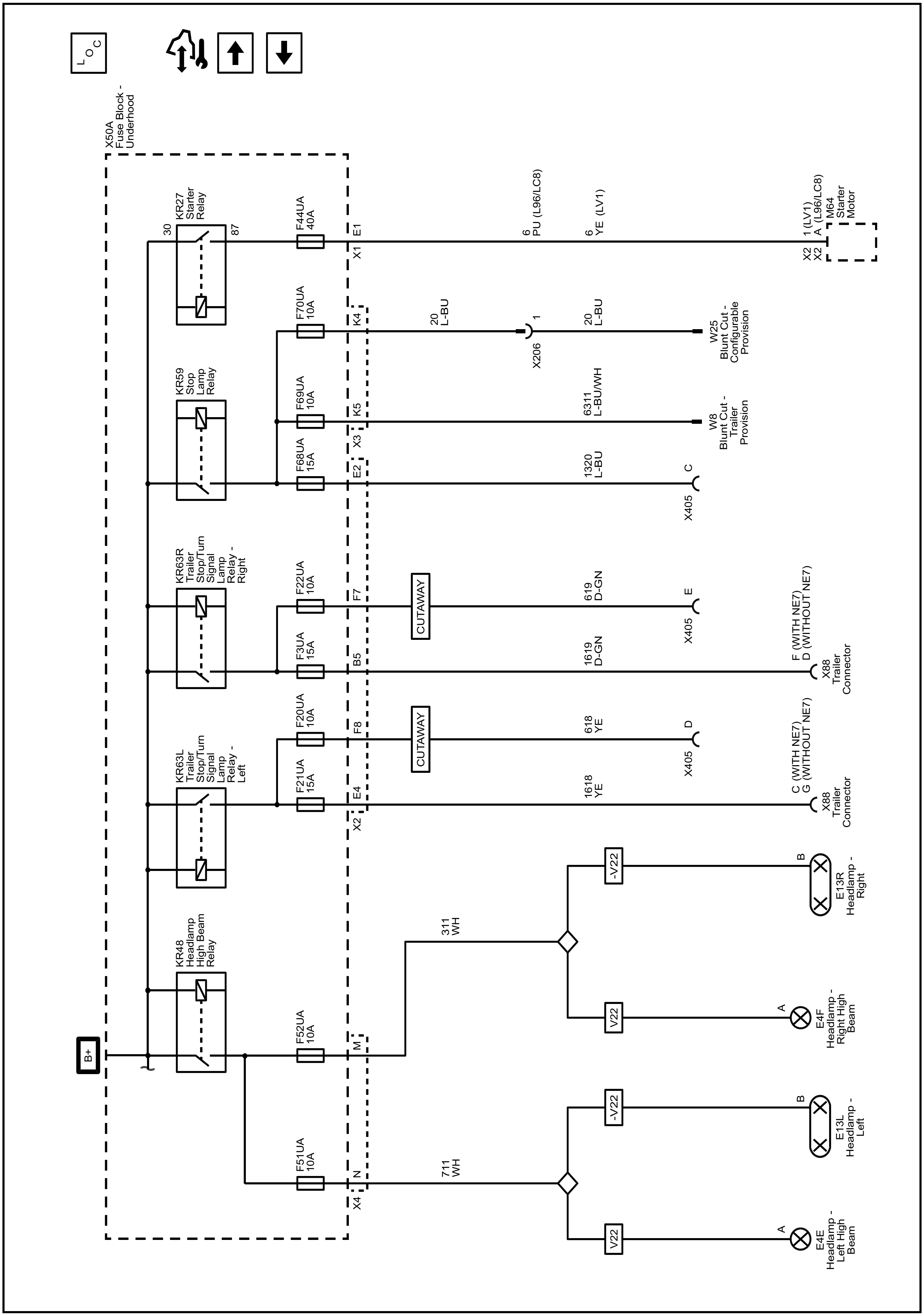
Power Distribution Schematics (Fuses F1UA, F2UA, F11UA, F33UA, F35UA, F42UA, and F74UA)


4940096
L O C
X50A
Fuse Block - Underhood
B+
F2UA
40A
C2
1640
RD/VT
25
K17
Electronic Brake Control Module
F1UA
50A
D2
442
RD/YE
1
F35UA
15A
B4
1740
RD/WH
A
E19
Coolant Heater
F42UA
30A
D1
X2
742
RD/BK
G (WITH NE7)
E (WITHOUT NE7)
X88
Trailer Connector
F11UA
30A
B1
X3
3940
RD/WH
W8
Blunt Cut - Trailer Provision
F33UA
10A
B1
840
RD/WH
C
X202
J211
3140
RD/GN
1
X185
3140
RD/GN
12
X408
3140
RD/GN
J425
3140
RD/L-GN
5
B218R
Side Object Sensor Module - Right
3140
RD/L-GN
5
B218L
Side Object Sensor Module - Left
840
RD/WH
X1
1
K182
Parking Assist Control Module
F74UA
40A
F2
X1
542
RD/BK
A
R3
Blower Motor Resistor

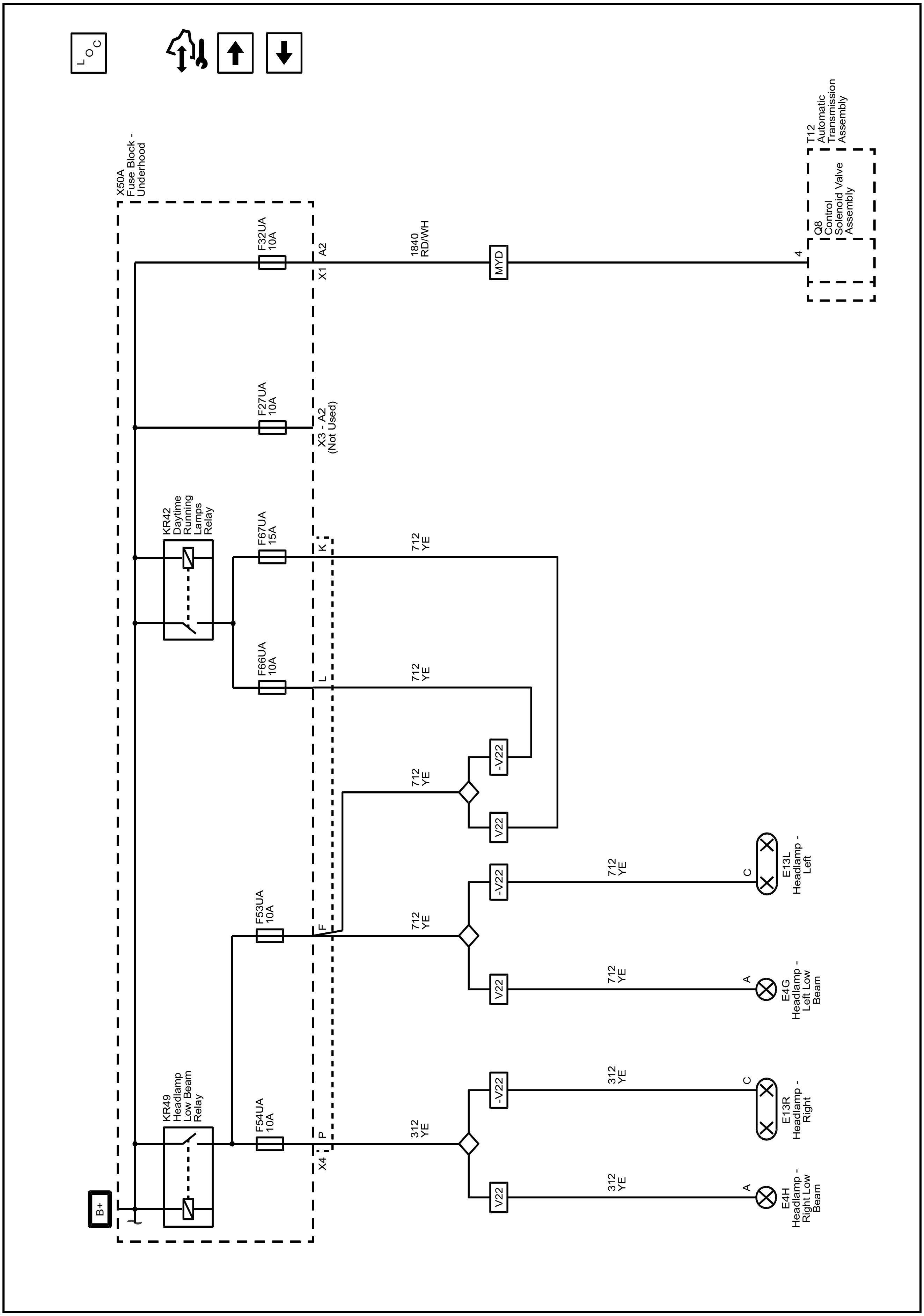
Power Distribution Schematics (Fuses F14UA, F16UA, F18UA, and F24UA)


4940097
LOC
B+
X50A Fuse Block - Underhood
KR29 A/C Compressor Clutch Relay
85
30
87
F18UA 15A
X1 B2
C60
59 BN/L-GN (LWN)
59 D-GN (-LWN)
1 (LWN)
B (-LWN)
Q2 A/C Compressor Clutch
KR11 Windshield Washer Pump Relay
F14UA 15A
X3 D1
228 OG
A
G24 Windshield Washer Pump
KR3 Horn Relay
F16UA 20A
X1 B4
29 D-GN
B
P13 Horn Assembly
KR23A Fuel Pump Relay
30
87
F24UA 30A (GAS) 20A (DIESEL)
X2 B1
LWN
120 GY
3
A7 Fuel Pump and Level Sensor Assembly

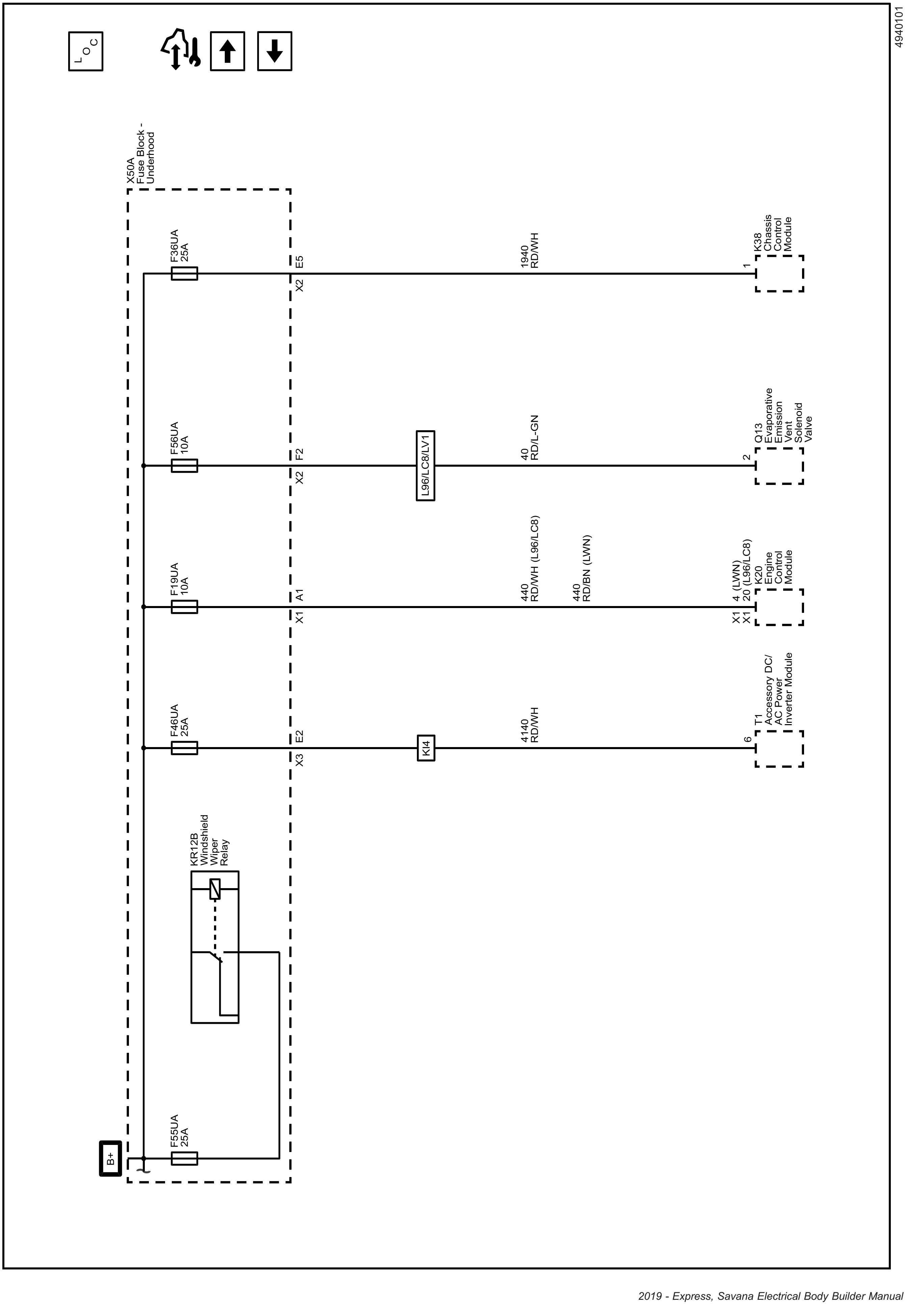
Power Distribution Schematics (Fuses F3UA, F21UA, F44UA, F51UA, F52UA, F68UA, F69UA, and F70UA)


4940098
L O C
X50A Fuse Block - Underhood
B+
KR27 Starter Relay
30
87
F44UA 40A
X1 E1
6 PU (L96/LC8)
6 YE (LV1)
X2 1 (LV1)
X2 A (L96/LC8)
M64 Starter Motor
F70UA 10A
K4
20 L-BU
X206 1
20 L-BU
W25 Blunt Cut - Configurable Provision
KR59 Stop Lamp Relay
F69UA 10A
K5
6311 L-BU/WH
W8 Blunt Cut - Trailer Provision
F68UA 15A
X3 E2
1320 L-BU
X405 C
KR63R Trailer Stop/Turn Signal Lamp Relay - Right
F22UA 10A
F7
CUTAWAY
619 D-GN
X405 E
F3UA 15A
B5
1619 D-GN
F (WITH NE7)
D (WITHOUT NE7)
X88 Trailer Connector
KR63L Trailer Stop/Turn Signal Lamp Relay - Left
F20UA 10A
F8
CUTAWAY
618 YE
X405 D
F21UA 15A
X2 E4
1618 YE
C (WITH NE7)
G (WITHOUT NE7)
X88 Trailer Connector
KR48 Headlamp High Beam Relay
F52UA 10A
M
311 WH
-V22
B
E13R Headlamp - Right
V22
A
E4F Headlamp - Right High Beam
F51UA 10A
X4 N
711 WH
-V22
B
E13L Headlamp - Left
V22
A
E4E Headlamp - Left High Beam

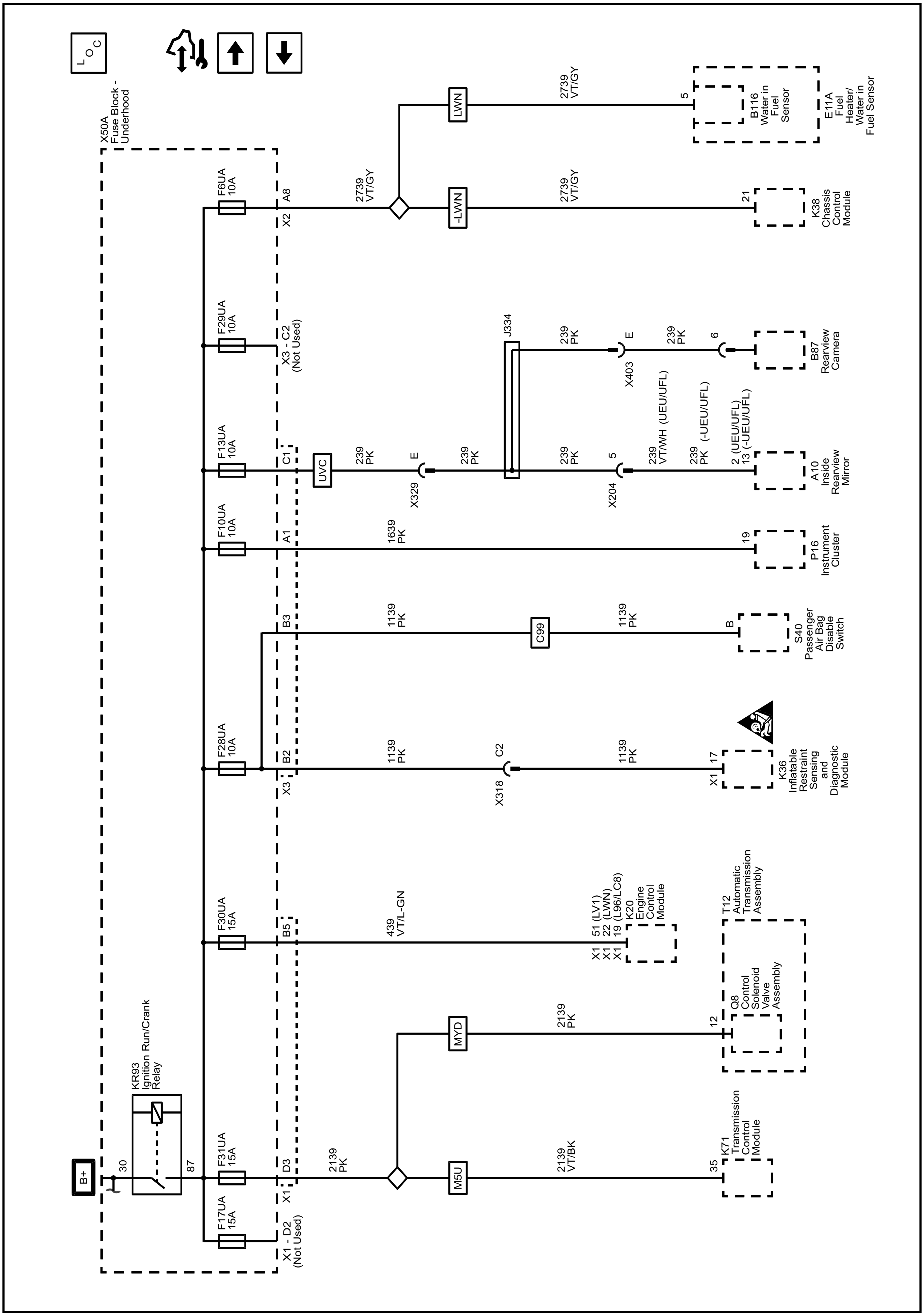
Power Distribution Schematics (Fuses F27UA, F32UA, F53UA, F54UA, F66UA, and F67UA)


4940100
LOC
B+
X50A Fuse Block - Underhood
F32UA 10A
X1 A2
1840 RD/WH
MYD
4
Q8 Control Solenoid Valve Assembly
T12 Automatic Transmission Assembly
F27UA 10A
X3 - A2 (Not Used)
KR42 Daytime Running Lamps Relay
F67UA 15A
K
712 YE
F66UA 10A
L
712 YE
-V22
712 YE
V22
-V22
712 YE
C
E13L Headlamp - Left
F53UA 10A
F
712 YE
V22
712 YE
A
E4G Headlamp - Left Low Beam
KR49 Headlamp Low Beam Relay
F54UA 10A
P
X4
312 YE
-V22
312 YE
C
E13R Headlamp - Right
V22
312 YE
A
E4H Headlamp - Right Low Beam

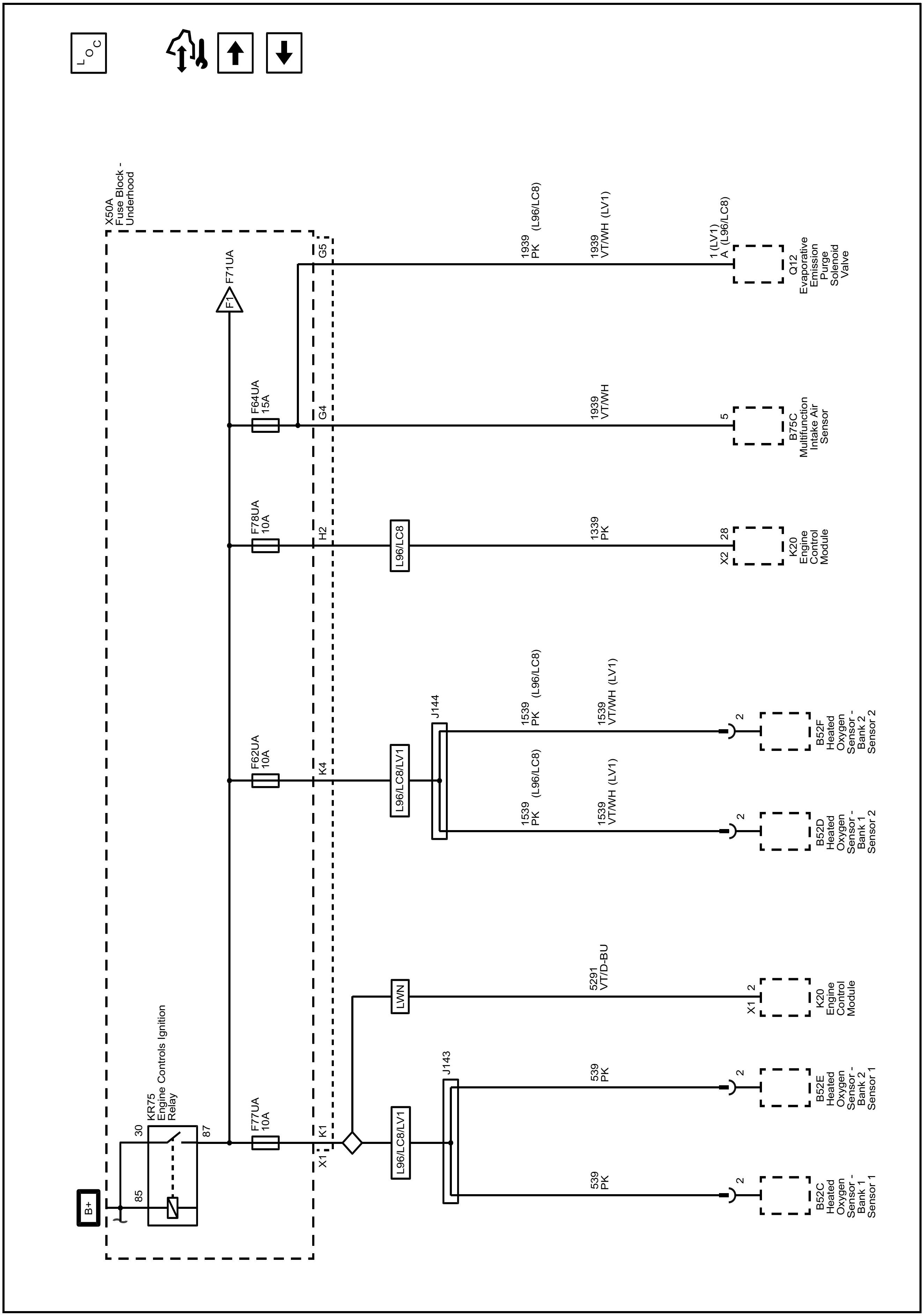
Power Distribution Schematics (Fuses F19UA, F36UA, F46UA, and F56UA)


4940101
LOC
B+
X50A Fuse Block - Underhood
F55UA 25A
KR12B Windshield Wiper Relay
F46UA 25A
X3 E2
KI4
4140 RD/WH
6
T1 Accessory DC/AC Power Inverter Module
F19UA 10A
X1 A1
440 RD/WH (L96/LC8)
440 RD/BN (LWN)
X1 4 (LWN)
X1 20 (L96/LC8)
K20 Engine Control Module
F56UA 10A
X2 F2
L96/LC8/LV1
40 RD/L-GN
2
Q13 Evaporative Emission Vent Solenoid Valve
F36UA 25A
X2 E5
1940 RD/WH
1
K38 Chassis Control Module

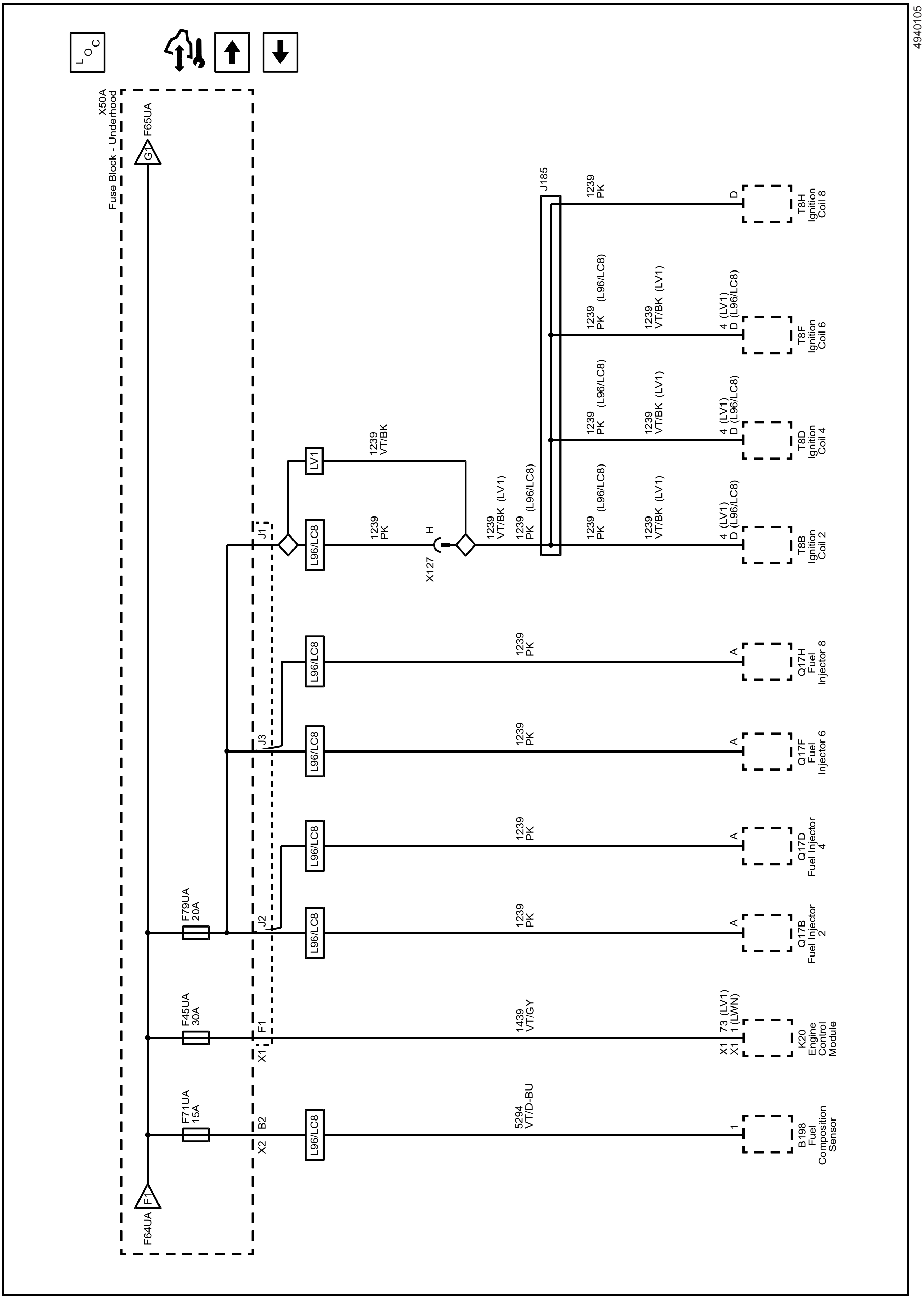
Power Distribution Schematics (Fuses F6UA, F10UA, F17UA, F28UA, F29UA, F30UA, and F31UA)


L O C
B+
X50A Fuse Block - Underhood
KR93 Ignition Run/Crank Relay
30
87
F17UA 15A
X1 - D2 (Not Used)
F31UA 15A
X1 D3
2139 PK
M5U
2139 VT/BK
35
K71 Transmission Control Module
MYD
2139 PK
12
Q8 Control Solenoid Valve Assembly
T12 Automatic Transmission Assembly
F30UA 15A
B5
439 VT/L-GN
X1 51 (LV1)
X1 22 (LWN)
X1 19 (L96/LC8)
K20 Engine Control Module
F28UA 10A
X3 B2
1139 PK
C2
X318
1139 PK
X1 17
K36 Inflatable Restraint Sensing and Diagnostic Module
B3
1139 PK
C99
1139 PK
B
S40 Passenger Air Bag Disable Switch
F10UA 10A
A1
1639 PK
19
P16 Instrument Cluster
F13UA 10A
C1
UVC
239 PK
E
X329
239 PK
J334
239 PK
5
X204
239 VT/WH (UEU/UFL)
239 PK (-UEU/UFL)
2 (UEU/UFL)
13 (-UEU/UFL)
A10 Inside Rearview Mirror
239 PK
E
X403
239 PK
6
B87 Rearview Camera
F29UA 10A
X3 - C2 (Not Used)
F6UA 10A
X2 A8
2739 VT/GY
-LWN
2739 VT/GY
21
K38 Chassis Control Module
LWN
2739 VT/GY
5
B116 Water in Fuel Sensor
E11A Fuel Heater/ Water in Fuel Sensor
4940103

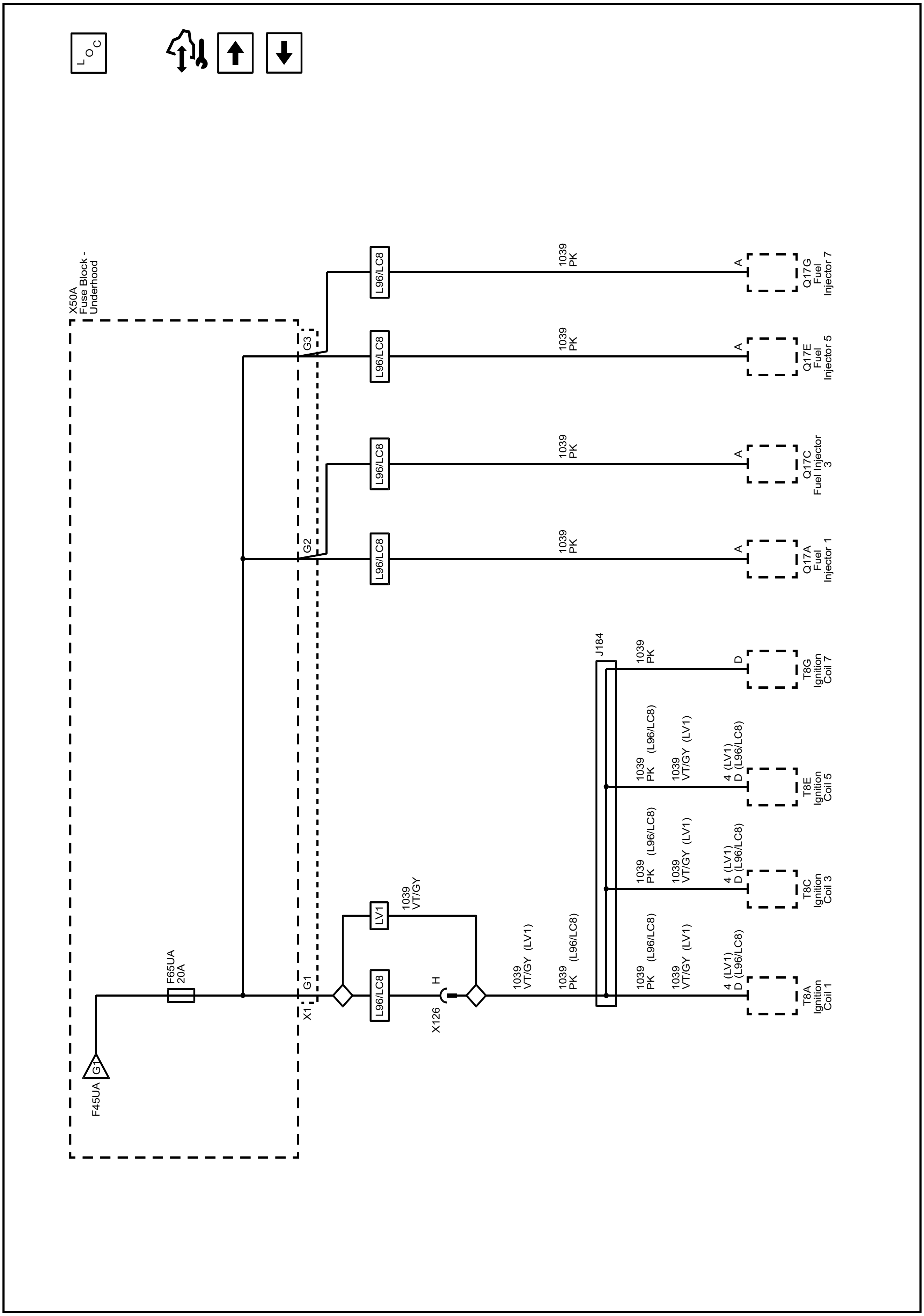
Power Distribution Schematics (Fuses F62UA, F64UA, F76UA, F77UA, and F78UA)


4940104
X50A
Fuse Block - Underhood
B+
KR75
Engine Controls Ignition Relay
30
85
87
F77UA
10A
K1
X1
F62UA
10A
K4
F78UA
10A
H2
F64UA
15A
G4
G5
F1
F71UA
L96/LC8/LV1
J143
539
PK
2
B52C
Heated Oxygen Sensor - Bank 1 Sensor 1
B52E
Heated Oxygen Sensor - Bank 2 Sensor 1
LWN
5291
VT/D-BU
X1 2
K20
Engine Control Module
J144
1539
PK (L96/LC8)
1539
VT/WH (LV1)
B52D
Heated Oxygen Sensor - Bank 1 Sensor 2
B52F
Heated Oxygen Sensor - Bank 2 Sensor 2
L96/LC8
1339
PK
X2 28
K20
Engine Control Module
1939
VT/WH
5
B75C
Multifunction Intake Air Sensor
1939
PK (L96/LC8)
1939
VT/WH (LV1)
1 (LV1)
A (L96/LC8)
Q12
Evaporative Emission Purge Solenoid Valve

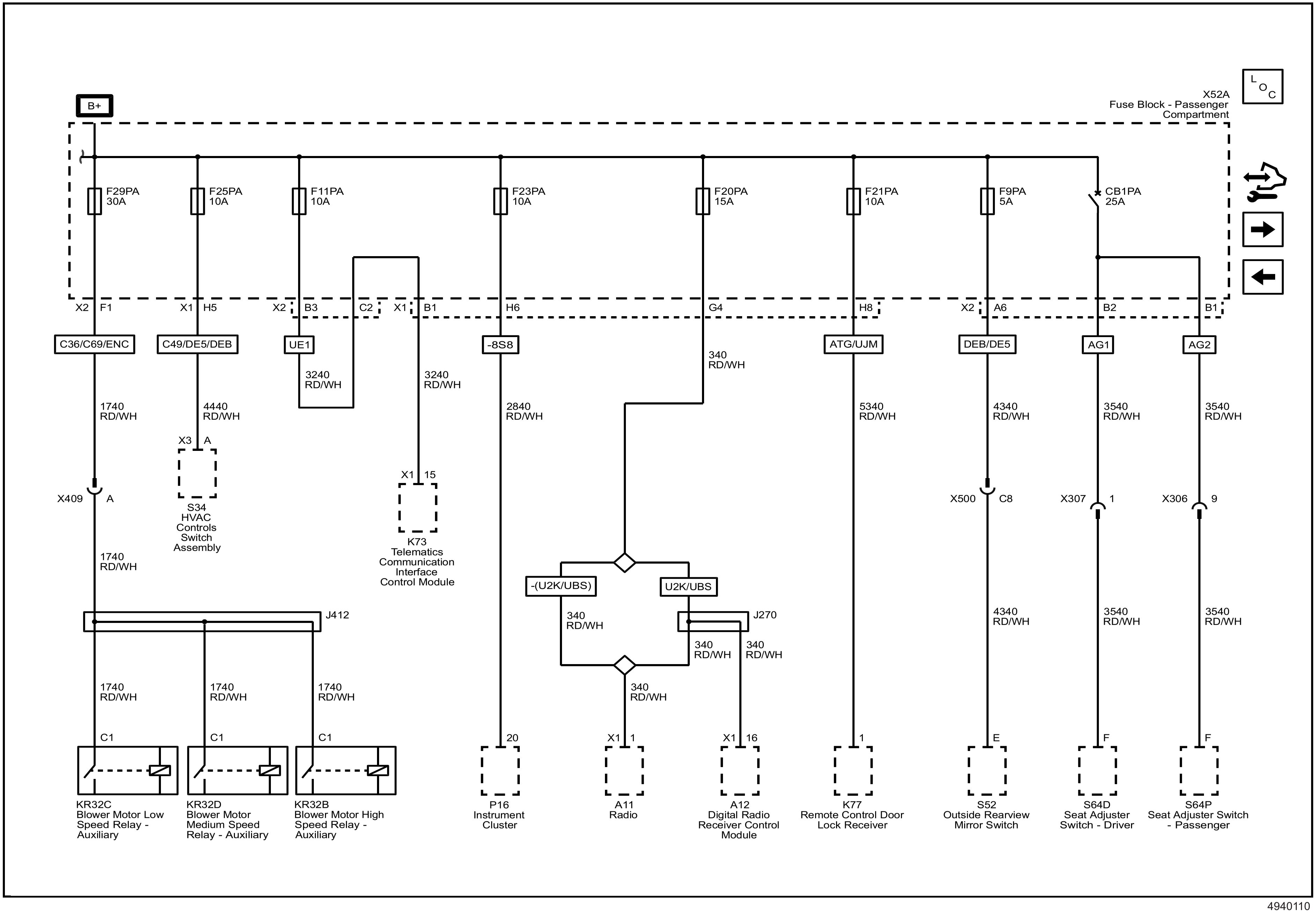
Power Distribution Schematics (Fuses F45UA, F71UA, and F79UA)


4940105
LOC
X50A
Fuse Block - Underhood
F65UA
G1
F64UA
F1
F79UA
20A
F45UA
30A
F71UA
15A
J1
J2
J3
F1
X1
B2
X2
LV1
L96/LC8
1239
VT/BK
1239
PK
H
X127
1239
VT/BK (LV1)
1239
PK (L96/LC8)
J185
1239
PK
1239
PK (L96/LC8)
1239
VT/BK (LV1)
4 (LV1)
D (L96/LC8)
D
T8H
Ignition
Coil 8
T8F
Ignition
Coil 6
T8D
Ignition
Coil 4
T8B
Ignition
Coil 2
A
Q17H
Fuel
Injector 8
Q17F
Fuel
Injector 6
Q17D
Fuel Injector
4
Q17B
Fuel Injector
2
1439
VT/GY
X1 73 (LV1)
X1 1 (LWN)
K20
Engine
Control
Module
5294
VT/D-BU
1
B198
Fuel
Composition
Sensor

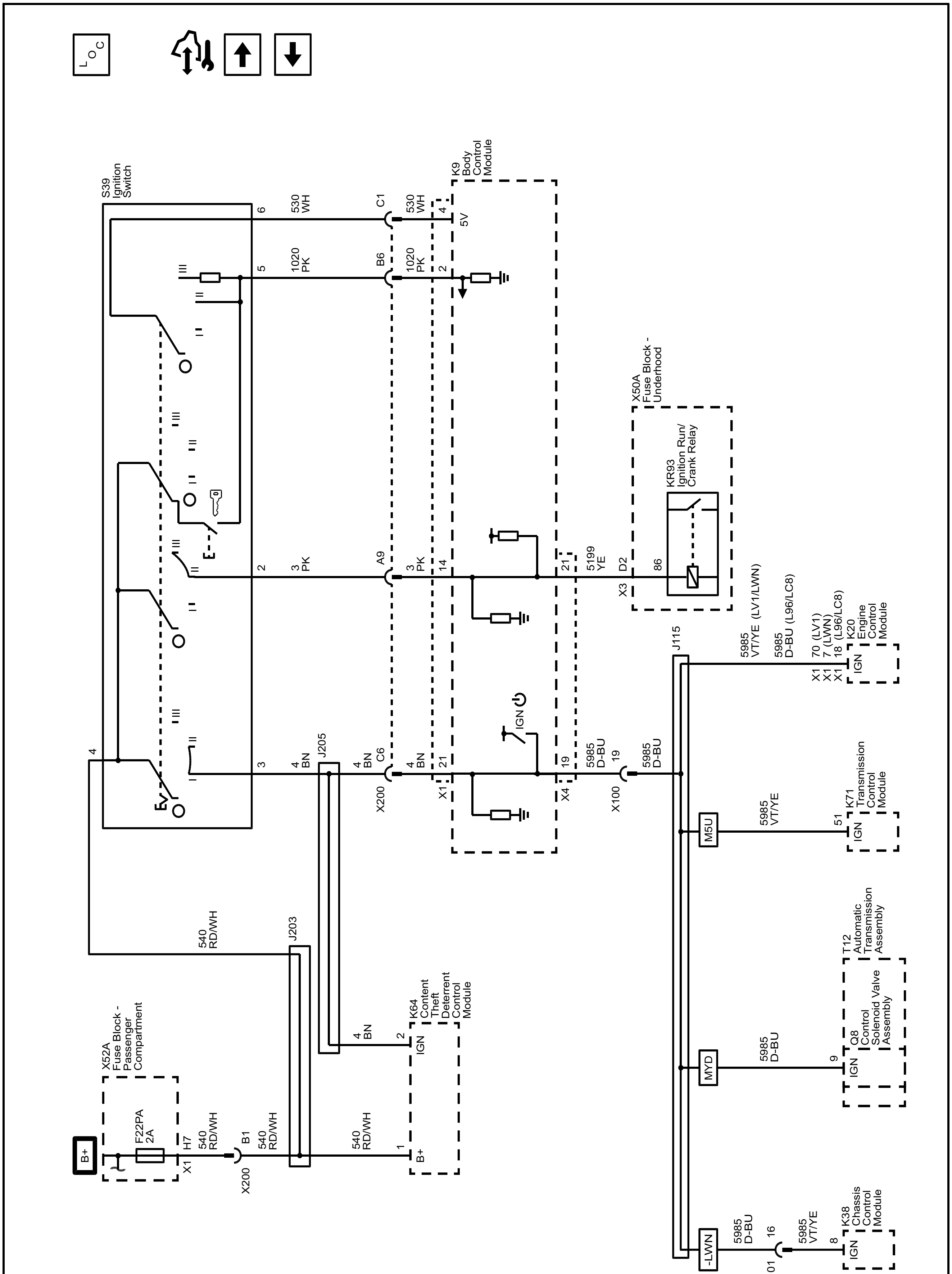
Power Distribution Schematics (Fuse F65UA)


4940107
L O C
X50A
Fuse Block - Underhood
F45UA
G1
F65UA
20A
X1
G1
G2
G3
L96/LC8
L96/LC8
L96/LC8
L96/LC8
L96/LC8
LV1
1039
VT/GY
H
X126
1039
VT/GY (LV1)
1039
PK (L96/LC8)
J184
1039
PK
A
Q17G
Fuel
Injector 7
1039
PK
A
Q17E
Fuel
Injector 5
1039
PK
A
Q17C
Fuel Injector
3
1039
PK
A
Q17A
Fuel
Injector 1
1039
PK
D
T8G
Ignition
Coil 7
1039
PK (L96/LC8)
1039
VT/GY (LV1)
4 (LV1)
D (L96/LC8)
T8E
Ignition
Coil 5
1039
PK (L96/LC8)
1039
VT/GY (LV1)
4 (LV1)
D (L96/LC8)
T8C
Ignition
Coil 3
1039
PK (L96/LC8)
1039
VT/GY (LV1)
4 (LV1)
D (L96/LC8)
T8A
Ignition
Coil 1

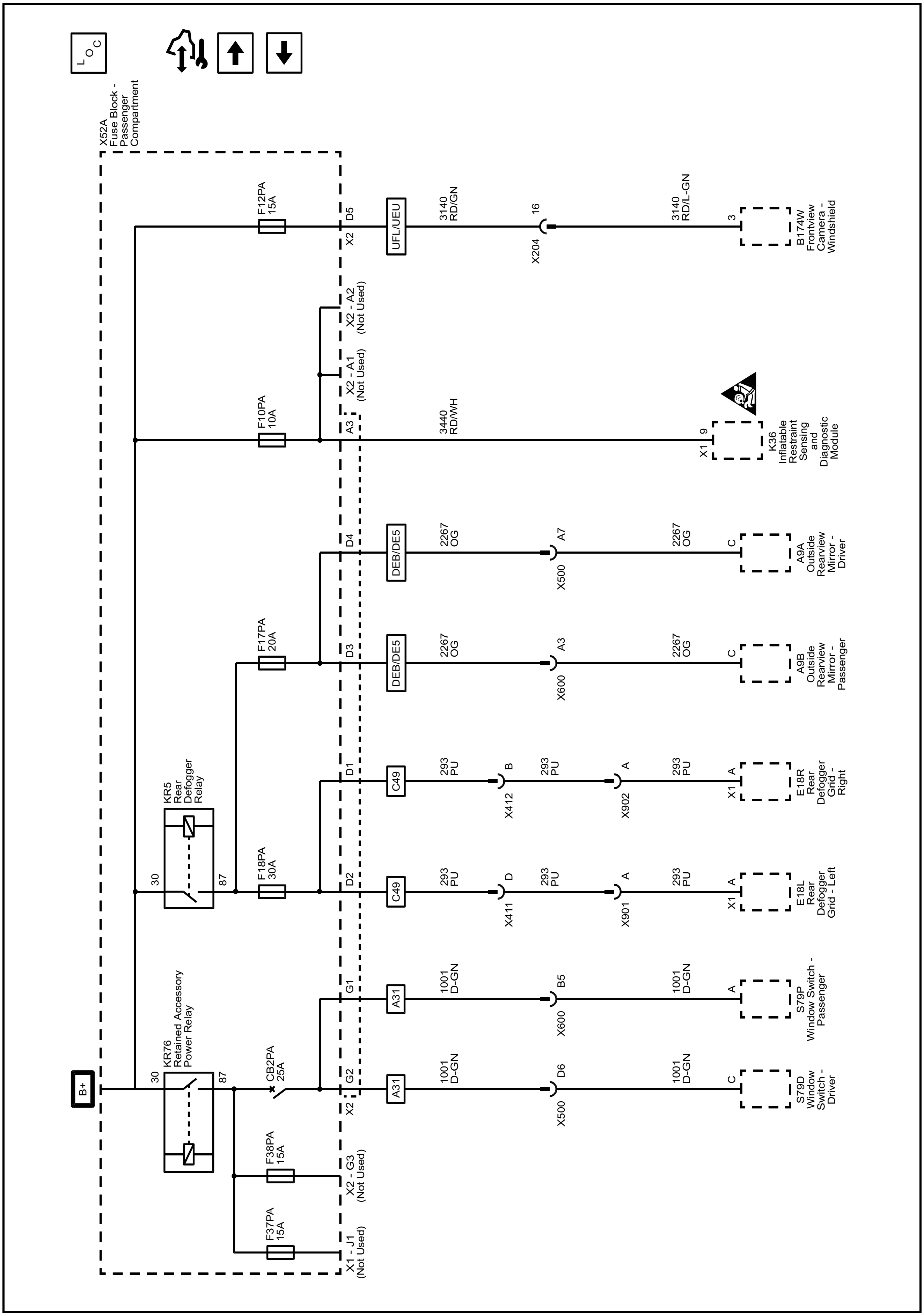
Power Distribution Schematics (Fuses F9PA, F11PA, F20PA, F21PA, F23PA, F25PA, F29PA, and Circuit Breaker CB1PA)


LOC
X52A
Fuse Block - Passenger Compartment
B+
F29PA 30A
F25PA 10A
F11PA 10A
F23PA 10A
F20PA 15A
F21PA 10A
F9PA 5A
CB1PA 25A
X2 F1
X1 H5
X2 B3
C2
X1 B1
H6
G4
H8
X2 A6
B2
B1
C36/C69/ENC
C49/DE5/DEB
UE1
-8S8
ATG/UJM
DEB/DE5
AG1
AG2
1740 RD/WH
4440 RD/WH
3240 RD/WH
3240 RD/WH
2840 RD/WH
340 RD/WH
5340 RD/WH
4340 RD/WH
3540 RD/WH
3540 RD/WH
X3 A
S34 HVAC Controls Switch Assembly
X1 15
K73 Telematics Communication Interface Control Module
X409 A
X500 C8
X307 1
X306 9
1740 RD/WH
-(U2K/UBS)
U2K/UBS
J412
J270
340 RD/WH
340 RD/WH
340 RD/WH
4340 RD/WH
3540 RD/WH
3540 RD/WH
1740 RD/WH
1740 RD/WH
1740 RD/WH
340 RD/WH
C1
C1
C1
20
X1 1
X1 16
1
E
F
F
KR32C Blower Motor Low Speed Relay - Auxiliary
KR32D Blower Motor Medium Speed Relay - Auxiliary
KR32B Blower Motor High Speed Relay - Auxiliary
P16 Instrument Cluster
A11 Radio
A12 Digital Radio Receiver Control Module
K77 Remote Control Door Lock Receiver
S52 Outside Rearview Mirror Switch
S64D Seat Adjuster Switch - Driver
S64P Seat Adjuster Switch - Passenger
4940110

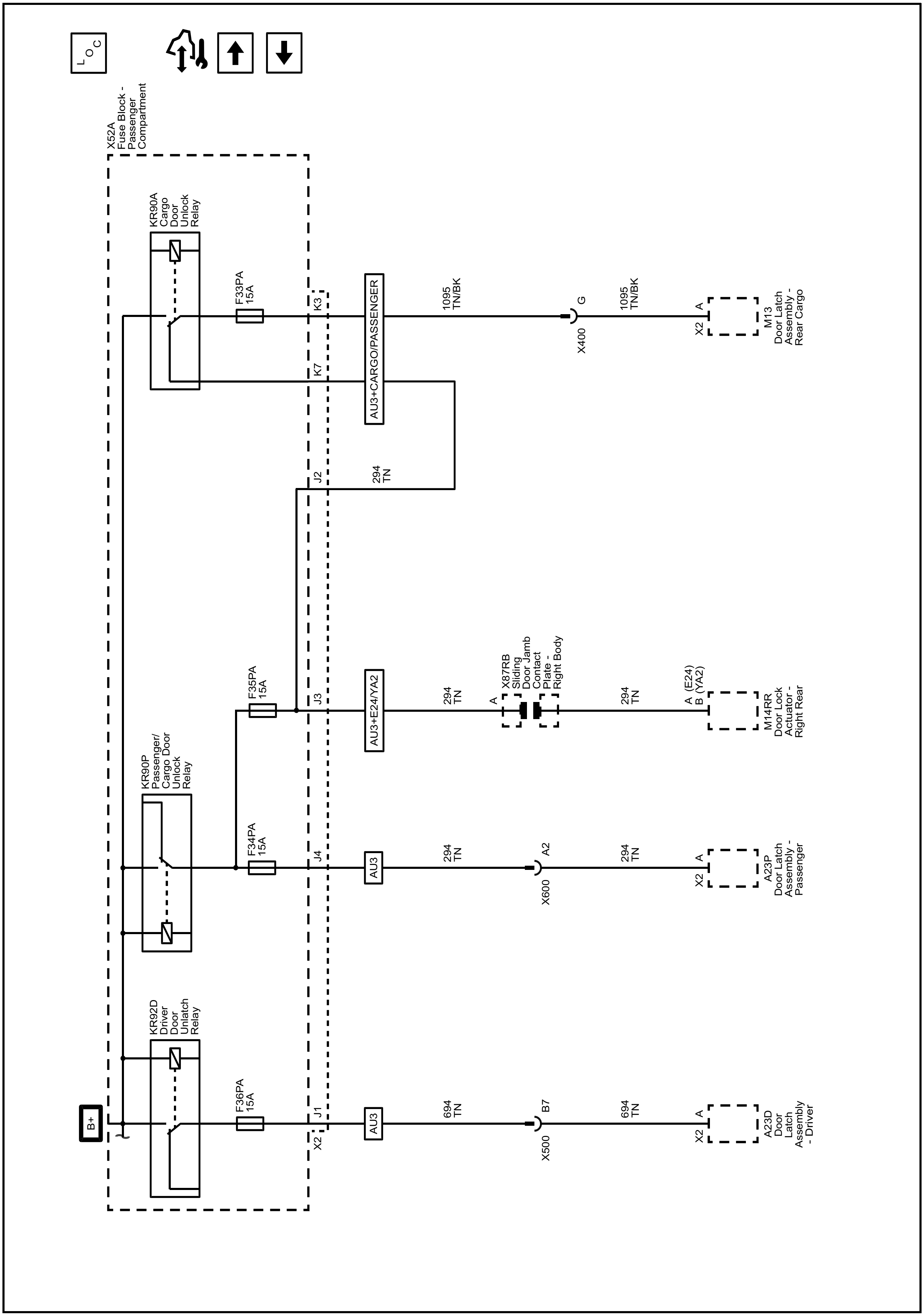
Power Distribution Schematics (Ignition Switch and Fuse F22PA)


4940112
S39 Ignition Switch
K9 Body Control Module
X52A Fuse Block - Passenger Compartment
F22PA 2A
B+
X1 H7
540 RD/WH
X200 B1
J203
J205
K64 Content Theft Deterrent Control Module
IGN
B+
530 WH
C1
5V
1020 PK
B6
3 PK
A9
4 BN
C6
X200
X1
X4
5985 D-BU
X100
IGN
X50A Fuse Block - Underhood
KR93 Ignition Run/ Crank Relay
5199 YE
D2
X3
86
J115
5985 VT/YE (LV1/LWN)
5985 D-BU (L96/LC8)
X1 70 (LV1)
X1 7 (LWN)
X1 18 (L96/LC8)
K20 Engine Control Module
M5U
5985 VT/YE
51
K71 Transmission Control Module
MYD
5985 D-BU
9
Q8 Control Solenoid Valve Assembly
T12 Automatic Transmission Assembly
-LWN
X101
16
8
K38 Chassis Control Module
I
II
III

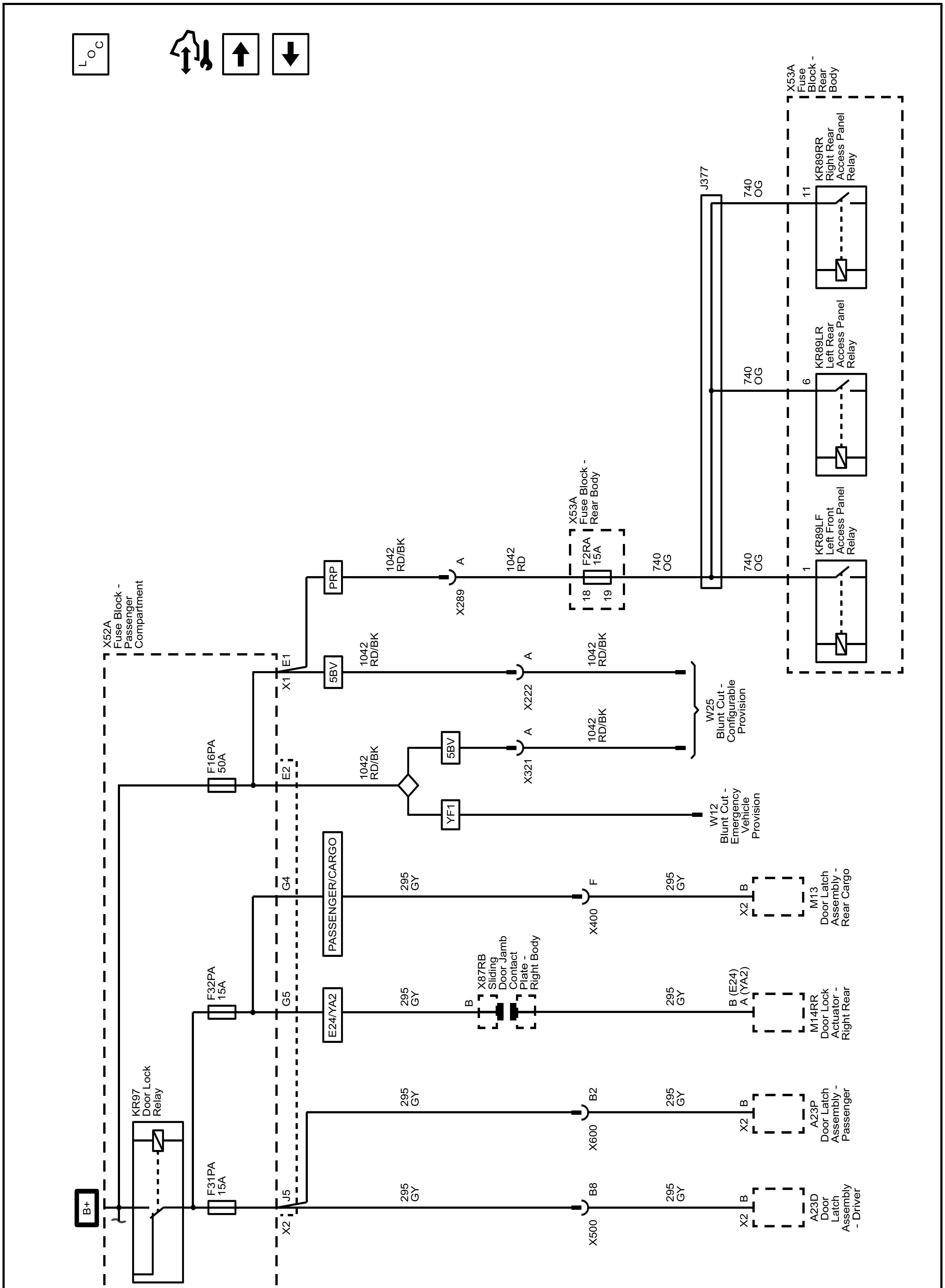
Power Distribution Schematics (Fuses F10PA, F17PA, F18PA, F37PA, F38PA, and Circuit Breaker CB2PA)


4940114
X52A Fuse Block - Passenger Compartment
B+
KR76 Retained Accessory Power Relay
30
87
KR5 Rear Defogger Relay
30
87
F37PA 15A
X1 - J1 (Not Used)
F38PA 15A
X2 - G3 (Not Used)
CB2PA 25A
X2
G2
G1
F18PA 30A
D2
D1
F17PA 20A
D3
D4
F10PA 10A
A3
X2 - A1 (Not Used)
X2 - A2 (Not Used)
F12PA 15A
X2
D5
A31
A31
C49
C49
DEB/DE5
DEB/DE5
UFL/UEU
1001 D-GN
1001 D-GN
293 PU
293 PU
2267 OG
2267 OG
3440 RD/WH
3140 RD/GN
X500
D6
X600
B5
X411
D
X412
B
X600
A3
X500
A7
X204
16
293 PU
293 PU
X901
A
X902
A
1001 D-GN
1001 D-GN
293 PU
293 PU
2267 OG
2267 OG
3140 RD/L-GN
C
S79D Window Switch - Driver
A
S79P Window Switch - Passenger
X1 A
E18L Rear Defogger Grid - Left
X1 A
E18R Rear Defogger Grid - Right
C
A9B Outside Rearview Mirror - Passenger
C
A9A Outside Rearview Mirror - Driver
X1 9
K36 Inflatable Restraint Sensing and Diagnostic Module
3
B174W Frontview Camera - Windshield

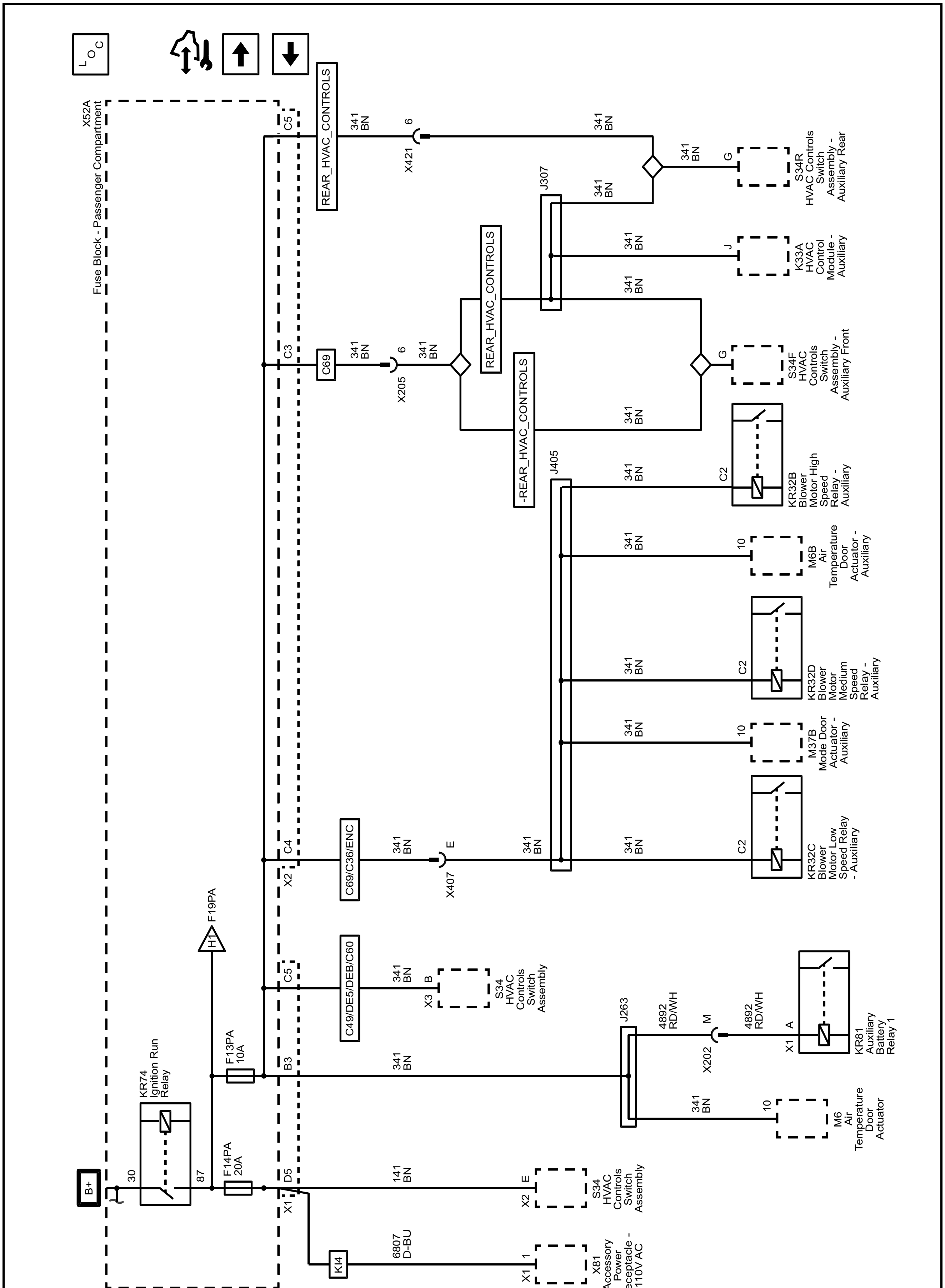
Power Distribution Schematics (Fuses F33PA, F34PA, F35PA, and F36PA)


4940117
X52A Fuse Block - Passenger Compartment
KR90A Cargo Door Unlock Relay
KR90P Passenger/ Cargo Door Unlock Relay
KR92D Driver Door Unlatch Relay
B+
F33PA 15A
F35PA 15A
F34PA 15A
F36PA 15A
K3
K7
J2
J3
J4
J1
X2
AU3+CARGO/PASSENGER
AU3+E24/YA2
AU3
AU3
1095 TN/BK
294 TN
694 TN
G
X400
A2
X600
B7
X500
A
X87RB Sliding Door Jamb Contact Plate - Right Body
A (E24)
B (YA2)
M13 Door Latch Assembly - Rear Cargo
M14RR Door Lock Actuator - Right Rear
A23P Door Latch Assembly - Passenger
A23D Door Latch Assembly - Driver

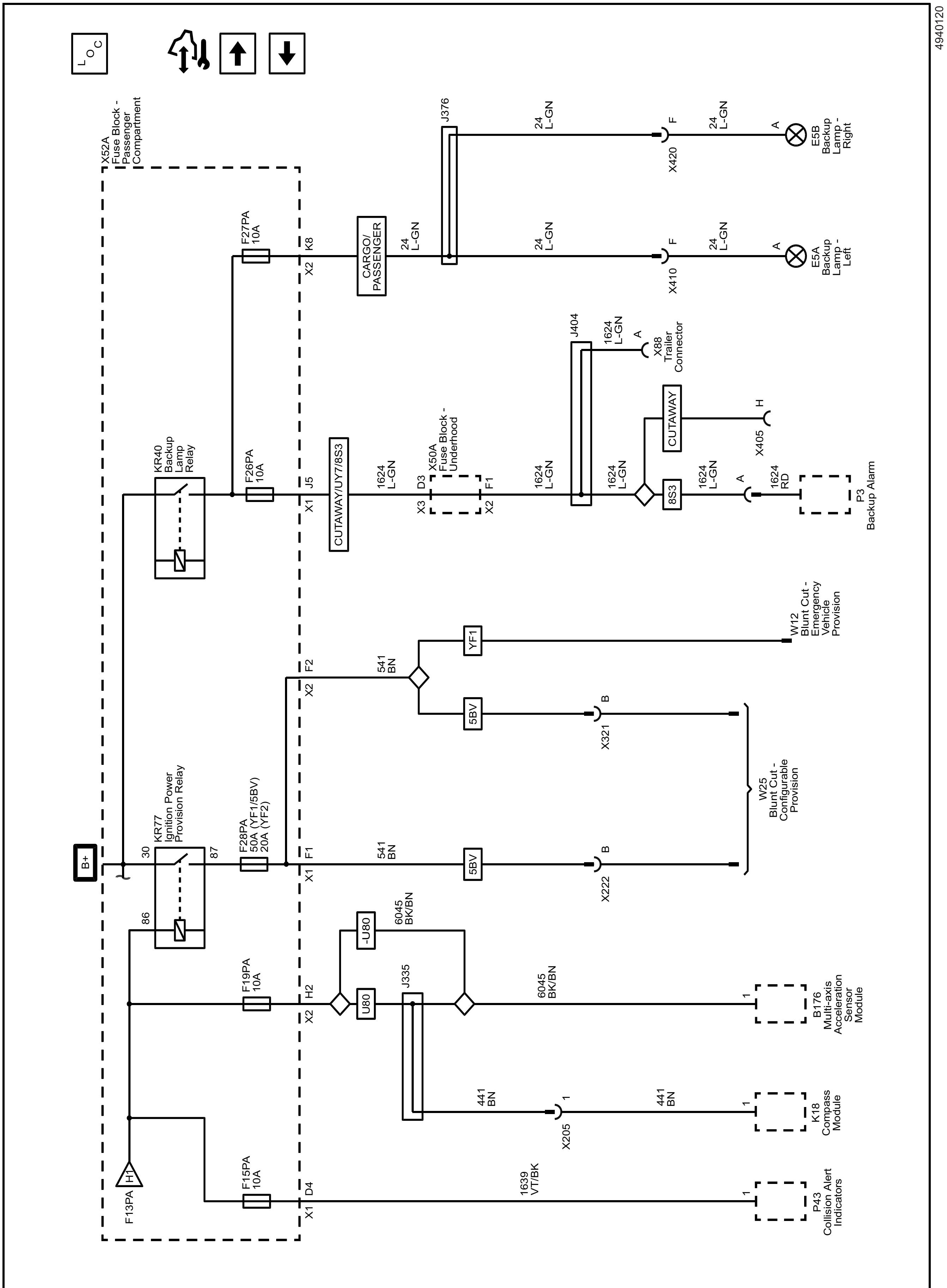
Power Distribution Schematics (Fuses F16PA, F31PA, F32PA, and F2RA)


4940118
B+
KR97
Door Lock
Relay
X52A
Fuse Block -
Passenger
Compartment
F31PA
15A
F32PA
15A
F16PA
50A
X2
J5
G5
G4
E2
X1
E1
295
GY
B8
X500
B2
X600
E24/YA2
B
X87RB
Sliding
Door Jamb
Contact
Plate -
Right Body
PASSENGER/CARGO
F
X400
1042
RD/BK
YF1
5BV
A
X321
X222
PRP
X289
1042
RD
F2RA
15A
18
19
X53A
Fuse Block -
Rear Body
740
OG
J377
W12
Blunt Cut -
Emergency
Vehicle
Provision
W25
Blunt Cut -
Configurable
Provision
A23D
Door
Latch
Assembly
- Driver
A23P
Door Latch
Assembly -
Passenger
B (E24)
A (YA2)
M14RR
Door Lock
Actuator -
Right Rear
M13
Door Latch
Assembly -
Rear Cargo
1
KR89LF
Left Front
Access Panel
Relay
6
KR89LR
Left Rear
Access Panel
Relay
11
KR89RR
Right Rear
Access Panel
Relay
X53A
Fuse
Block -
Rear
Body

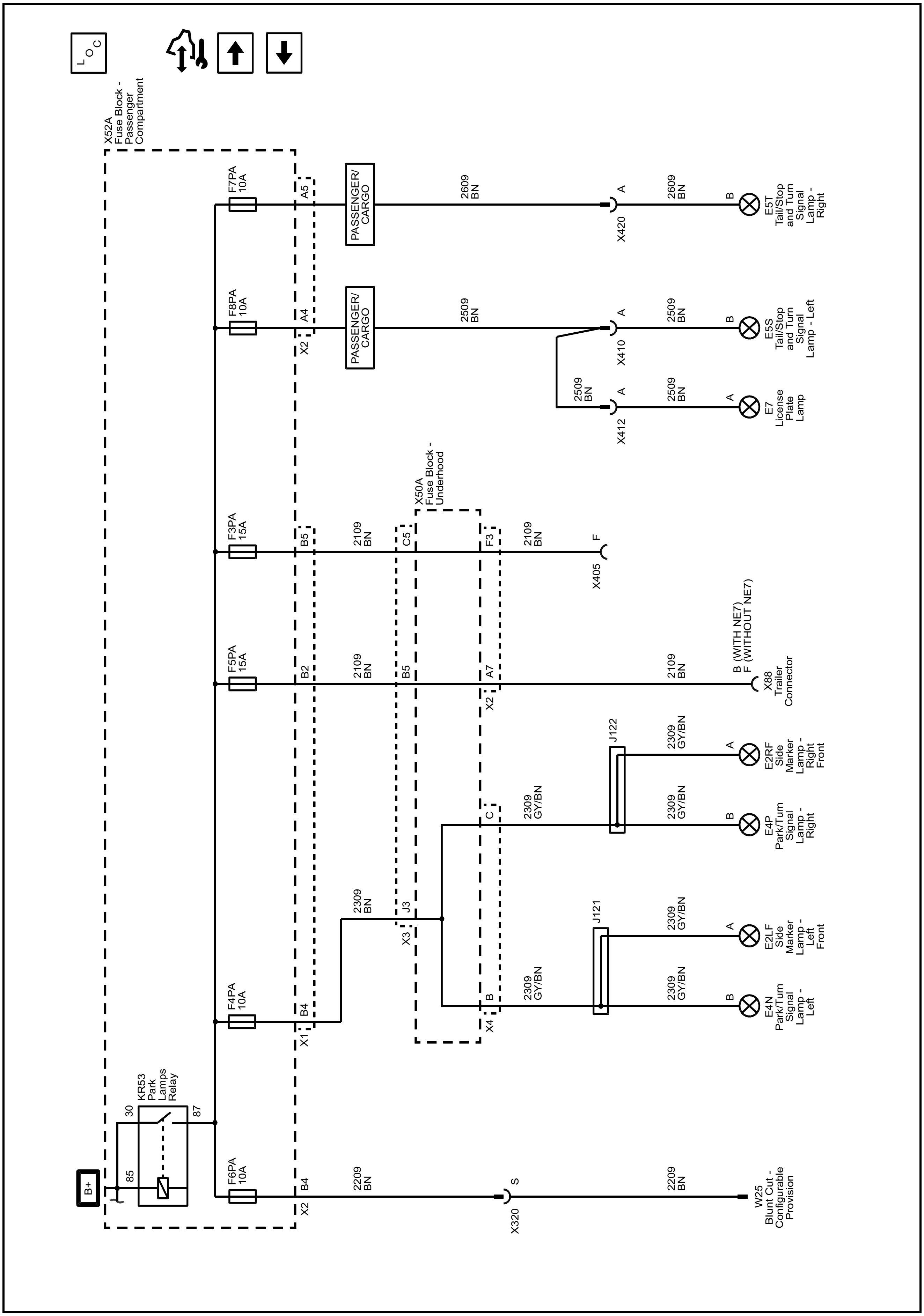
Power Distribution Schematics (Fuses F13PA and F14PA)


4940119
L O C
X52A
Fuse Block - Passenger Compartment
B+
30
KR74
Ignition Run
Relay
87
F14PA
20A
F13PA
10A
H1
F19PA
D5
X1
B3
C5
X2
C4
C3
C5
REAR_HVAC_CONTROLS
341
BN
6
X421
C69
X205
C69/C36/ENC
E
X407
C49/DE5/DEB/C60
B
X3
S34
HVAC
Controls
Switch
Assembly
141
BN
E
X2
6807
D-BU
KI4
X1 1
X81
Accessory
Power
Receptacle -
110V AC
J263
4892
RD/WH
M
X202
A
X1
KR81
Auxiliary
Battery
Relay 1
10
M6
Air
Temperature
Door
Actuator
J405
C2
KR32C
Blower
Motor Low
Speed Relay
- Auxiliary
M37B
Mode Door
Actuator -
Auxiliary
KR32D
Blower
Motor
Medium
Speed
Relay -
Auxiliary
M6B
Air
Temperature
Door
Actuator -
Auxiliary
KR32B
Blower
Motor High
Speed
Relay -
Auxiliary
-REAR_HVAC_CONTROLS
G
S34F
HVAC
Controls
Switch
Assembly -
Auxiliary Front
J307
J
K33A
HVAC
Control
Module -
Auxiliary
S34R
HVAC Controls
Switch
Assembly -
Auxiliary Rear

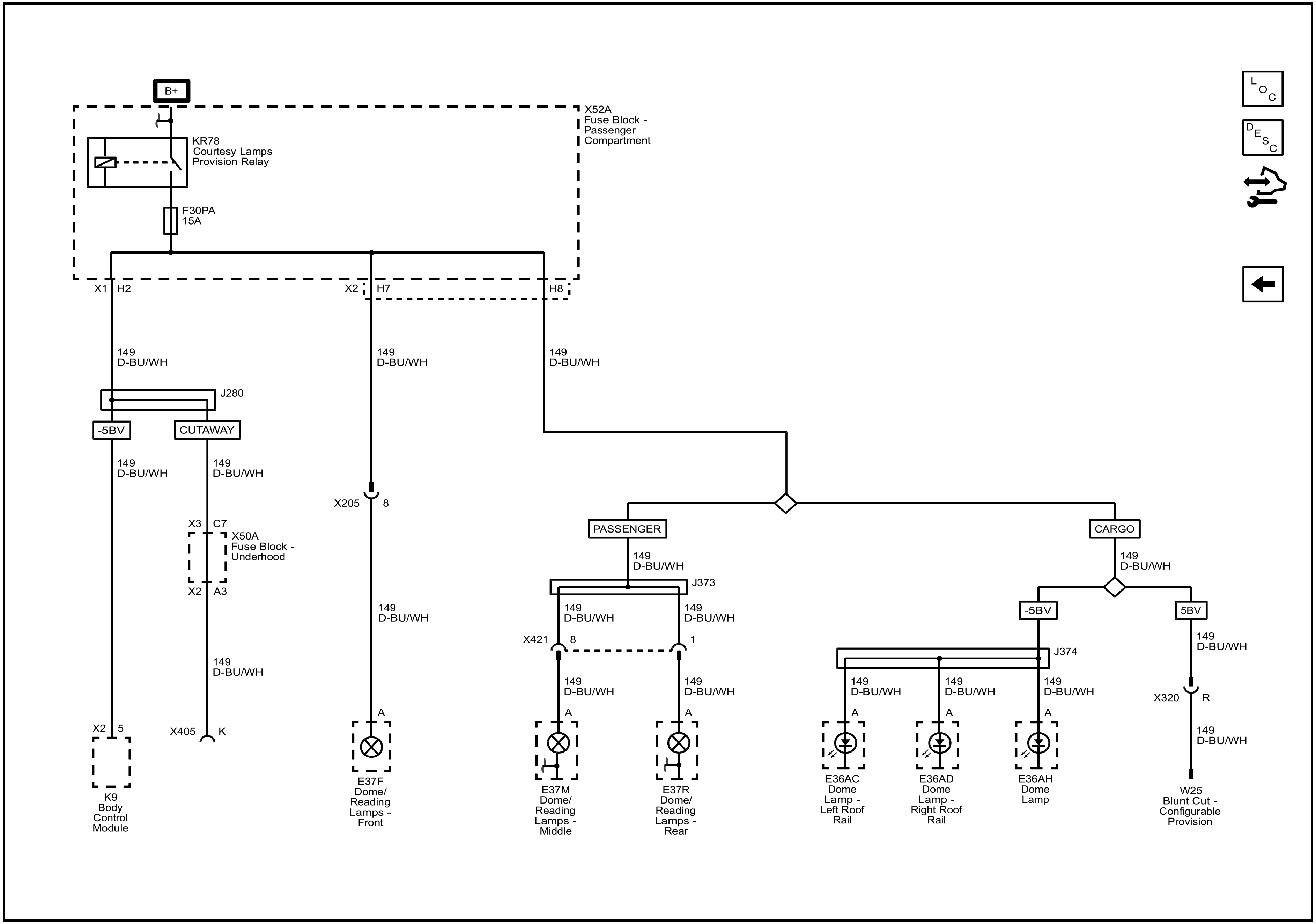
Power Distribution Schematics (Fuses F19PA, F26PA, F27PA, and F28PA)


4940120
LOC
B+
X52A Fuse Block - Passenger Compartment
KR77 Ignition Power Provision Relay
30
86
87
KR40 Backup Lamp Relay
F28PA 50A (YF1/5BV) 20A (YF2)
F26PA 10A
F27PA 10A
F19PA 10A
F15PA 10A
F13PA
H1
X1 F1
X2 F2
X1 J5
X2 K8
X2 H2
X1 D4
541 BN
5BV
YF1
X222
X321
B
W25 Blunt Cut - Configurable Provision
W12 Blunt Cut - Emergency Vehicle Provision
CUTAWAY/UY7/8S3
1624 L-GN
X50A Fuse Block - Underhood
X3 D3
X2 F1
J404
A
X88 Trailer Connector
CUTAWAY
H
X405
8S3
1624 RD
P3 Backup Alarm
CARGO/ PASSENGER
24 L-GN
J376
F
X410
X420
E5A Backup Lamp - Left
E5B Backup Lamp - Right
-U80
U80
6045 BK/BN
J335
B176 Multi-axis Acceleration Sensor Module
441 BN
X205
1
K18 Compass Module
1639 VT/BK
P43 Collision Alert Indicators

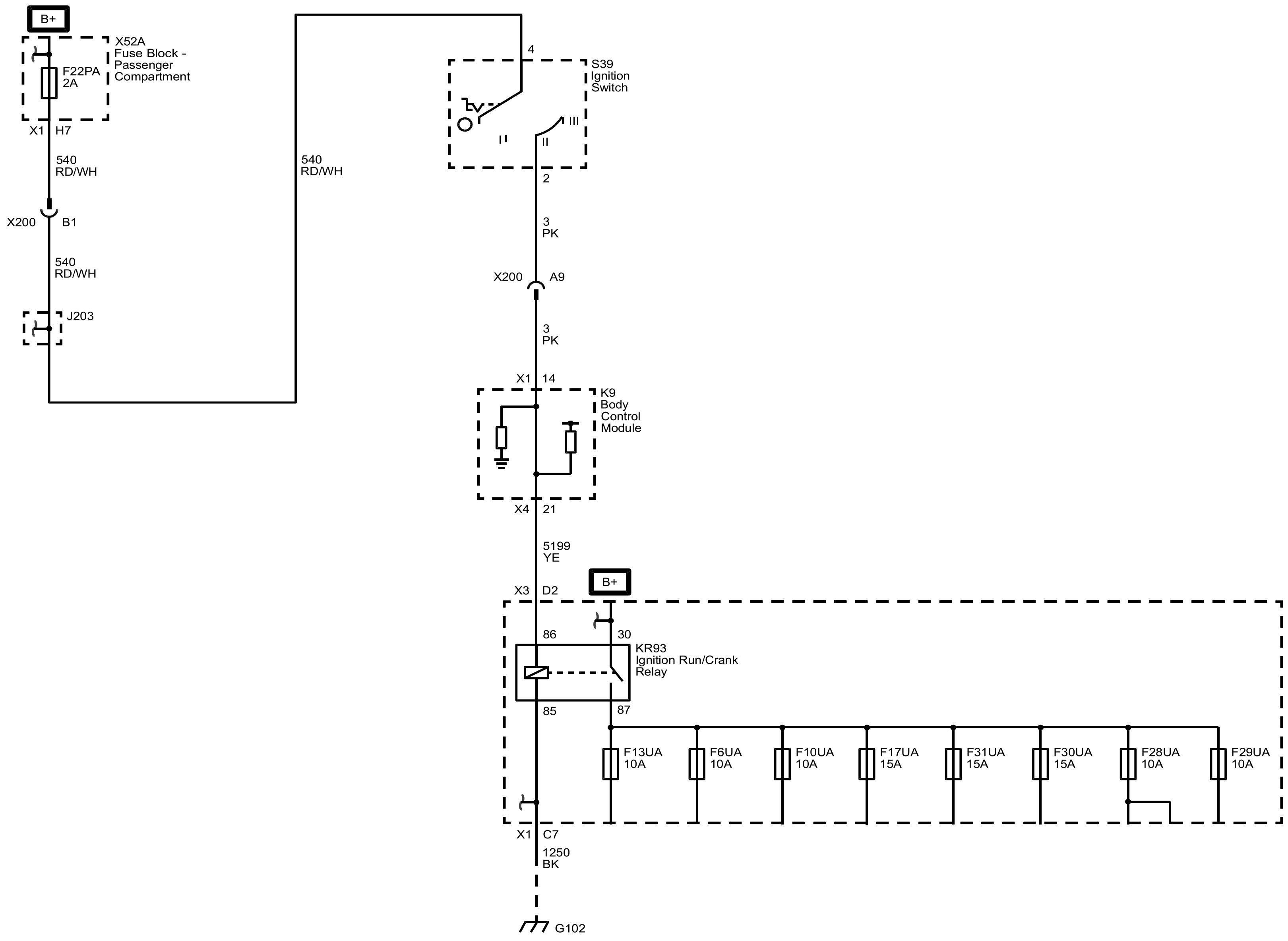
Power Distribution Schematics (Fuses F3PA, F4PA, F5PA, F6PA, F7PA, and F8PA)


4940121
LOC
X52A Fuse Block - Passenger Compartment
B+
85
30
KR53 Park Lamps Relay
87
F7PA 10A
A5
PASSENGER/ CARGO
2609 BN
A
X420
2609 BN
B
E5T Tail/Stop and Turn Signal Lamp - Right
F8PA 10A
A4
X2
PASSENGER/ CARGO
2509 BN
A
X410
2509 BN
B
E5S Tail/Stop and Turn Signal Lamp - Left
2509 BN
A
X412
2509 BN
A
E7 License Plate Lamp
X50A Fuse Block - Underhood
F3PA 15A
B5
2109 BN
C5
F3
2109 BN
F
X405
F5PA 15A
B2
2109 BN
B5
A7
X2
2109 BN
B (WITH NE7)
F (WITHOUT NE7)
X88 Trailer Connector
J122
2309 GY/BN
A
E2RF Side Marker Lamp - Right Front
C
2309 GY/BN
2309 GY/BN
B
E4P Park/Turn Signal Lamp - Right
2309 BN
J3
X3
J121
2309 GY/BN
A
E2LF Side Marker Lamp - Left Front
F4PA 10A
B4
X1
B
X4
2309 GY/BN
2309 GY/BN
B
E4N Park/Turn Signal Lamp - Left
F6PA 10A
B4
X2
2209 BN
S
X320
2209 BN
W25 Blunt Cut - Configurable Provision

Power Distribution Schematics (Fuse F30PA)

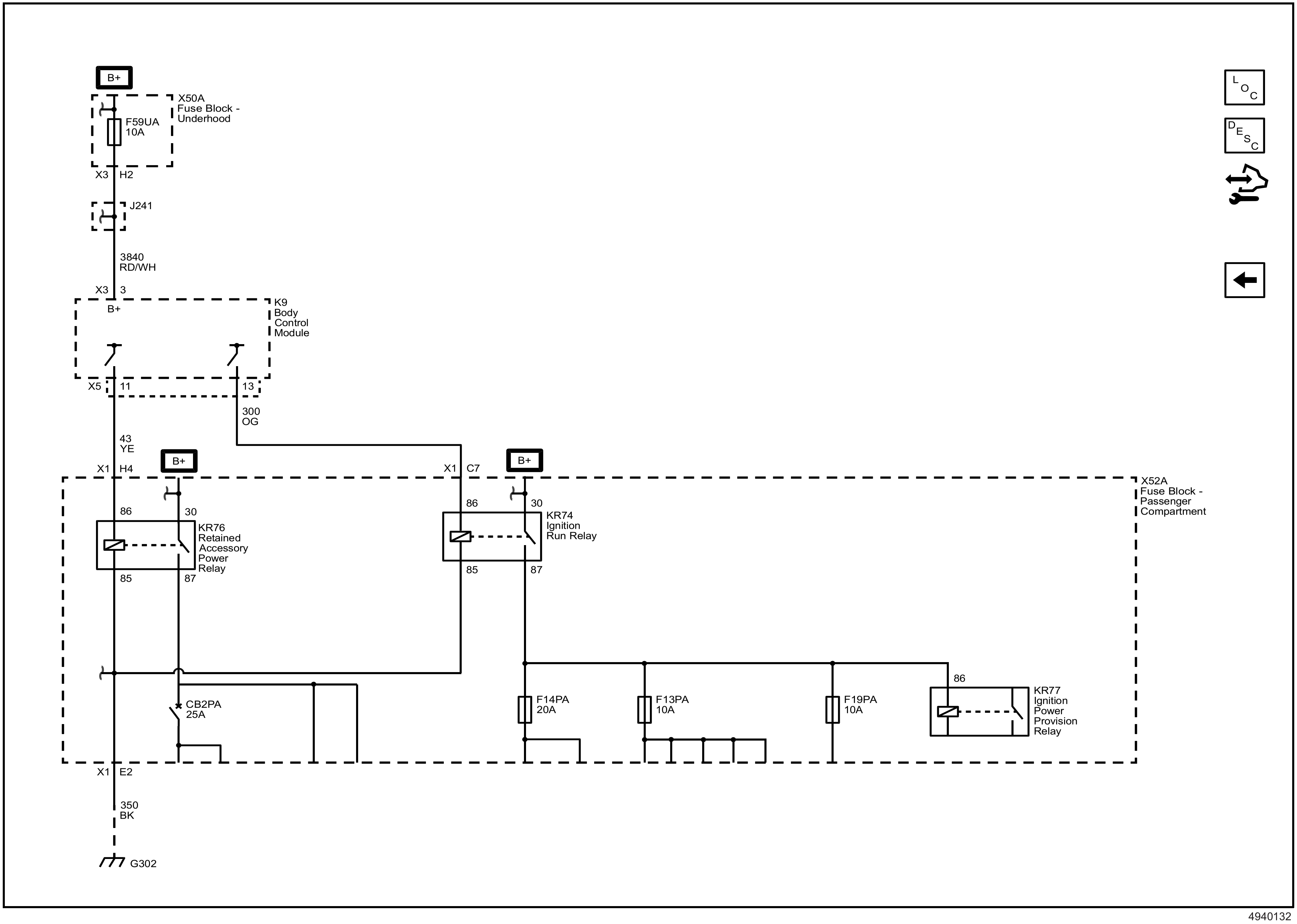

B+
X52A
Fuse Block -
Passenger
Compartment
KR78
Courtesy Lamps
Provision Relay
F30PA
15A
X1 H2
X2 H7
H8
149
D-BU/WH
J280
-5BV
CUTAWAY
X3 C7
X50A
Fuse Block -
Underhood
X2 A3
X405 K
X2 5
K9
Body
Control
Module
X205 8
A
E37F
Dome/
Reading
Lamps -
Front
PASSENGER
J373
X421 8
1
E37M
Dome/
Reading
Lamps -
Middle
E37R
Dome/
Reading
Lamps -
Rear
CARGO
-5BV
5BV
J374
E36AC
Dome
Lamp -
Left Roof
Rail
E36AD
Dome
Lamp -
Right Roof
Rail
E36AH
Dome
Lamp
X320 R
W25
Blunt Cut -
Configurable
Provision
L O C
D E S C
4940128

Power Moding Schematics (Ignition Run/Crank Relay)

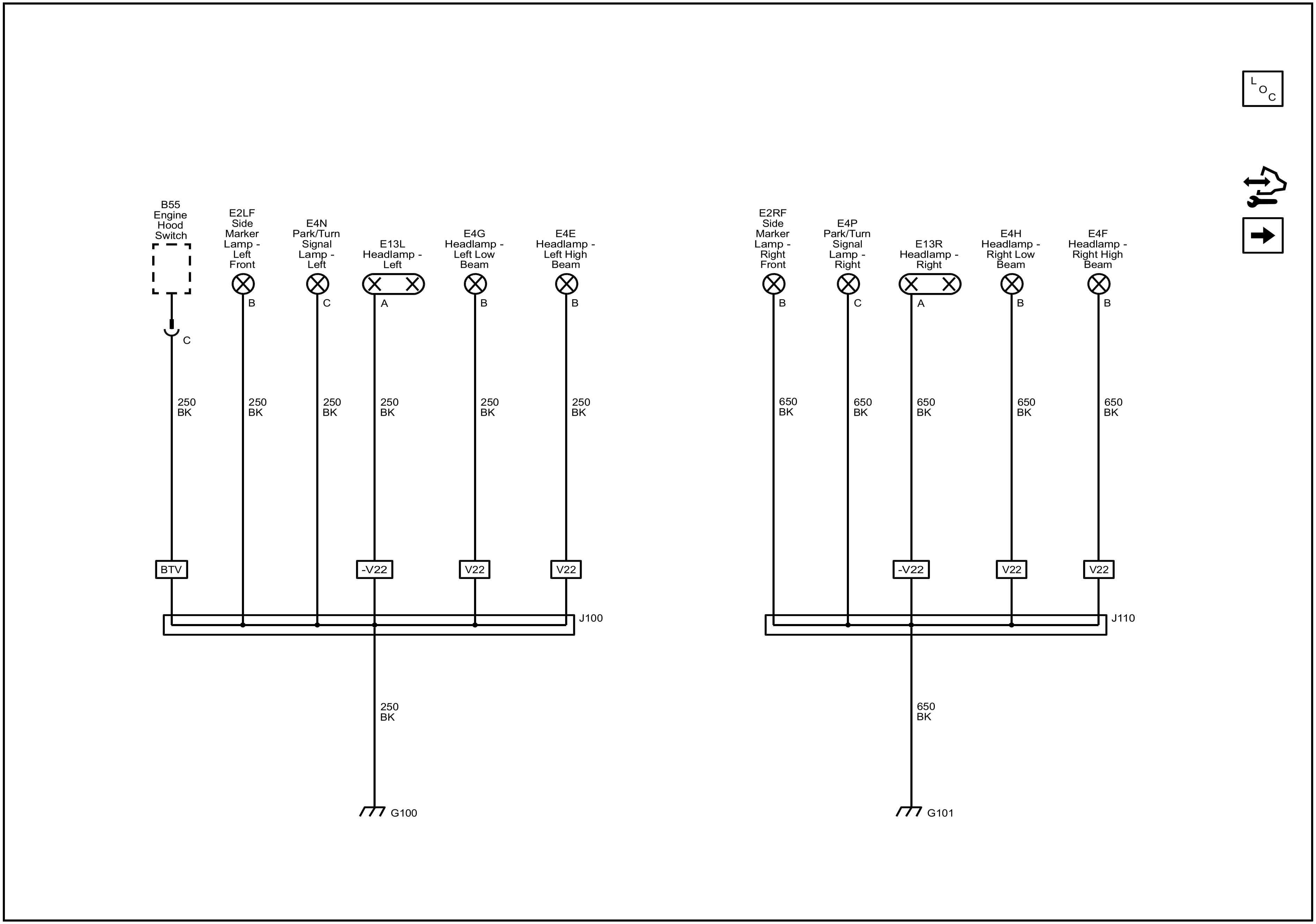

B+
X52A
Fuse Block -
Passenger
Compartment
F22PA
2A
X1 H7
540
RD/WH
X200 B1
540
RD/WH
J203
540
RD/WH
4
S39
Ignition
Switch
I
II
III
2
3
PK
X200 A9
3
PK
X1 14
K9
Body
Control
Module
X4 21
5199
YE
X3 D2
B+
86
30
KR93
Ignition Run/Crank
Relay
85
87
X50A
Fuse Block -
Underhood
F13UA
10A
F6UA
10A
F10UA
10A
F17UA
15A
F31UA
15A
F30UA
15A
F28UA
10A
F29UA
10A
X1 C7
1250
BK
G102

4940131

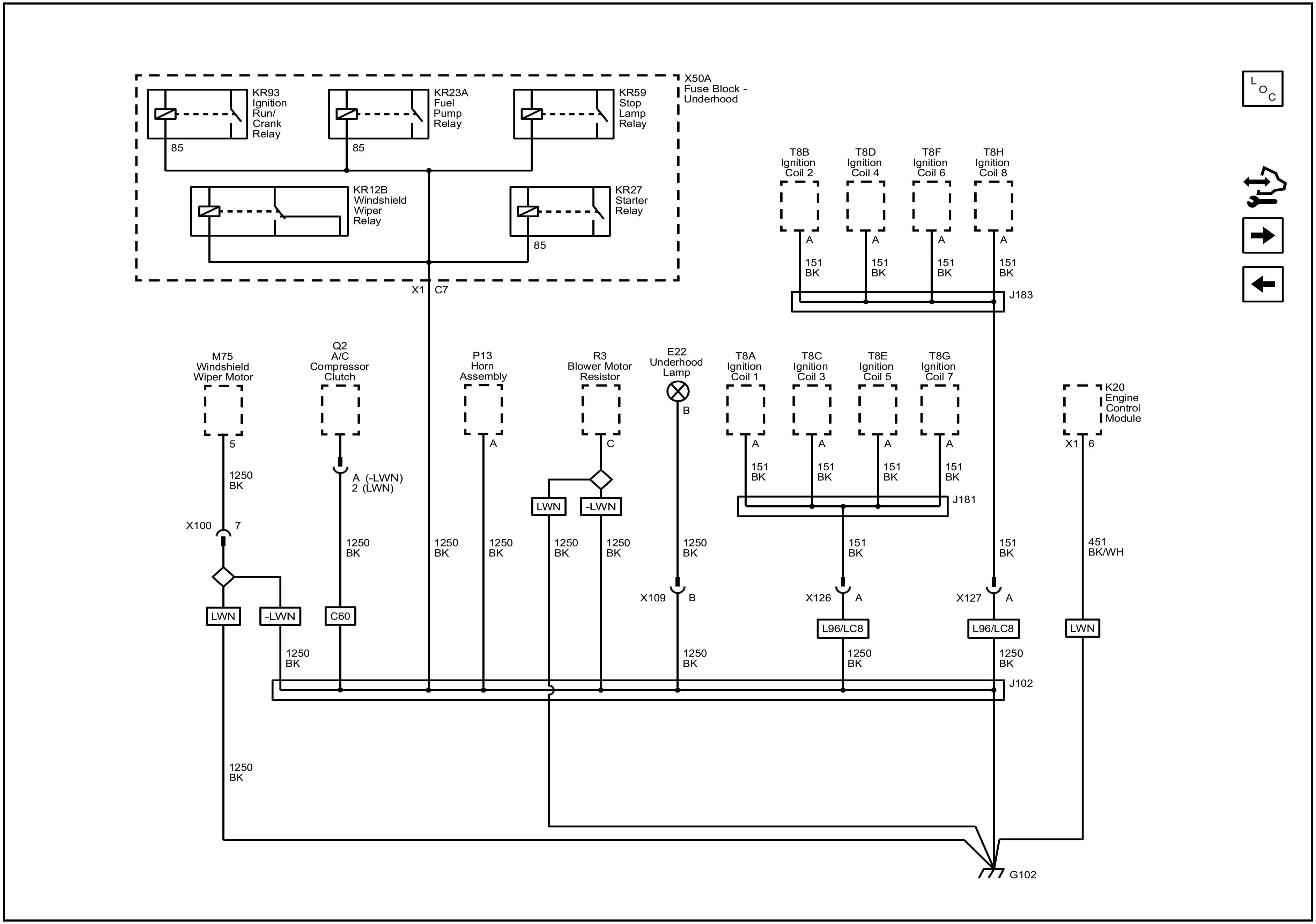
Power Moding Schematics (Retained Accessory Power Relay and Ignition Run Relay)


B+
X50A
Fuse Block -
Underhood
F59UA
10A
X3 H2
J241
3840
RD/WH
X3 3
B+
K9
Body
Control
Module
X5 11
13
300
OG
43
YE
X1 H4
B+
X1 C7
B+
X52A
Fuse Block -
Passenger
Compartment
86
30
KR76
Retained
Accessory
Power
Relay
85
87
86
30
KR74
Ignition
Run Relay
85
87
CB2PA
25A
F14PA
20A
F13PA
10A
F19PA
10A
86
KR77
Ignition
Power
Provision
Relay
X1 E2
350
BK
G302
L O C
D E S C
4940132

Ground Distribution Schematics (G100 and G101)

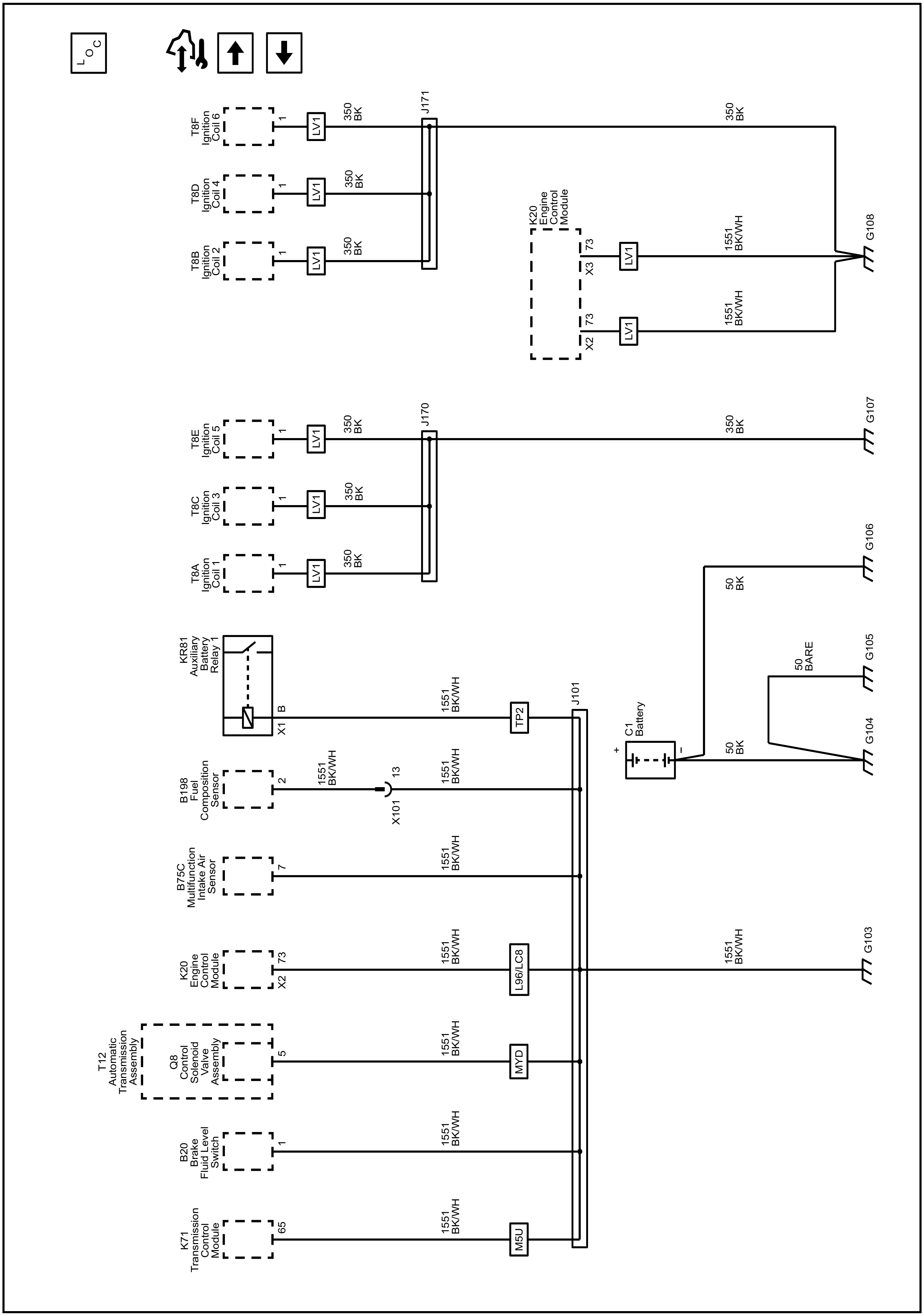

L O C
B55 Engine Hood Switch
C
250 BK
BTV
E2LF Side Marker Lamp - Left Front
B
250 BK
E4N Park/Turn Signal Lamp - Left
C
250 BK
E13L Headlamp - Left
A
250 BK
-V22
E4G Headlamp - Left Low Beam
B
250 BK
V22
E4E Headlamp - Left High Beam
B
250 BK
V22
J100
250 BK
G100
E2RF Side Marker Lamp - Right Front
B
650 BK
E4P Park/Turn Signal Lamp - Right
C
650 BK
E13R Headlamp - Right
A
650 BK
-V22
E4H Headlamp - Right Low Beam
B
650 BK
V22
E4F Headlamp - Right High Beam
B
650 BK
V22
J110
650 BK
G101
4940134

Ground Distribution Schematics (G102)

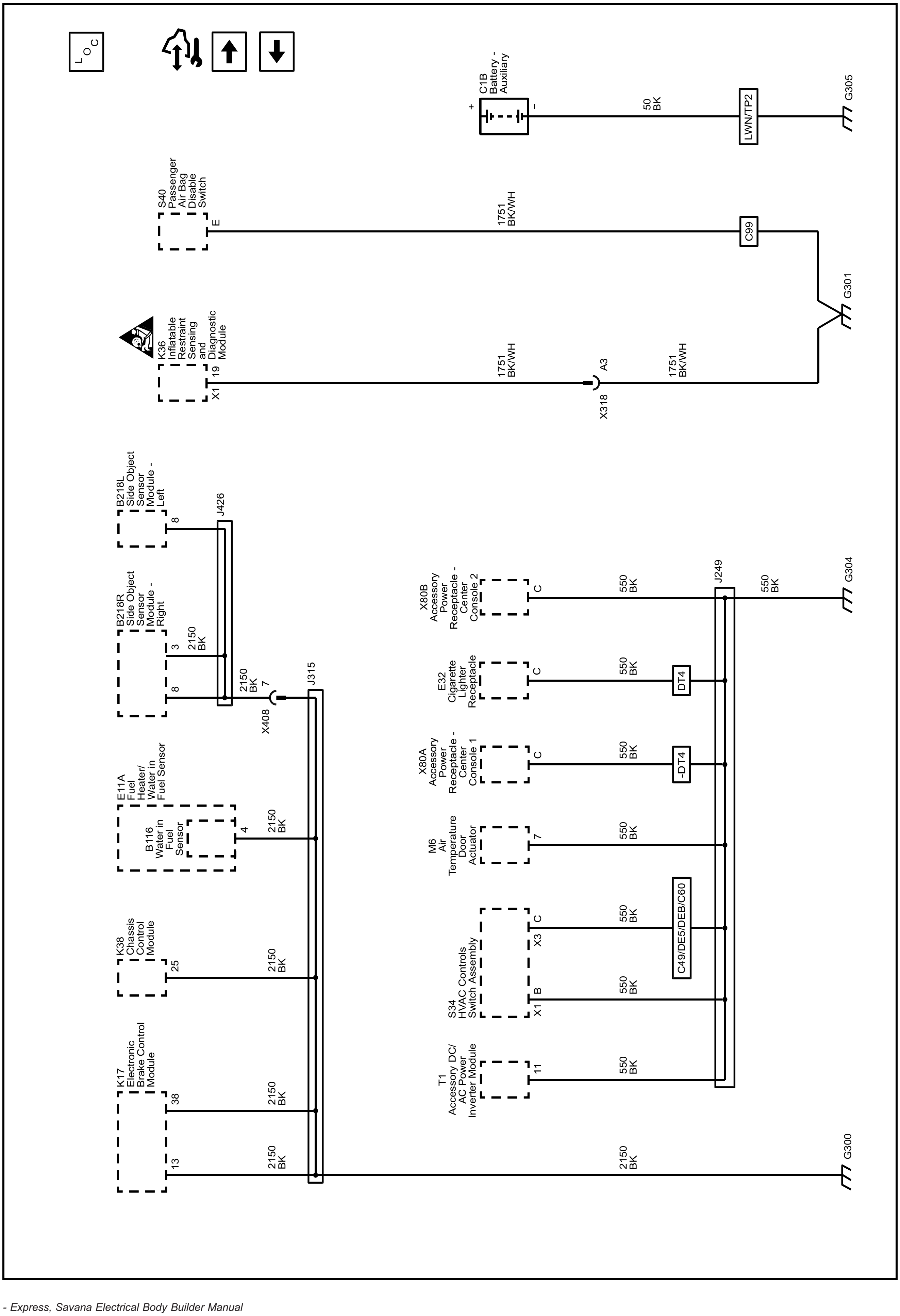

L O C
X50A
Fuse Block -
Underhood
KR93
Ignition
Run/
Crank
Relay
85
KR23A
Fuel
Pump
Relay
85
KR59
Stop
Lamp
Relay
KR12B
Windshield
Wiper
Relay
KR27
Starter
Relay
85
X1 C7
T8B
Ignition
Coil 2
T8D
Ignition
Coil 4
T8F
Ignition
Coil 6
T8H
Ignition
Coil 8
A
151
BK
J183
M75
Windshield
Wiper Motor
5
1250
BK
X100 7
LWN
-LWN
Q2
A/C
Compressor
Clutch
A (-LWN)
2 (LWN)
C60
P13
Horn
Assembly
R3
Blower Motor
Resistor
C
E22
Underhood
Lamp
B
X109 B
T8A
Ignition
Coil 1
T8C
Ignition
Coil 3
T8E
Ignition
Coil 5
T8G
Ignition
Coil 7
J181
X126 A
X127 A
L96/LC8
K20
Engine
Control
Module
X1 6
451
BK/WH
J102
G102

4940137

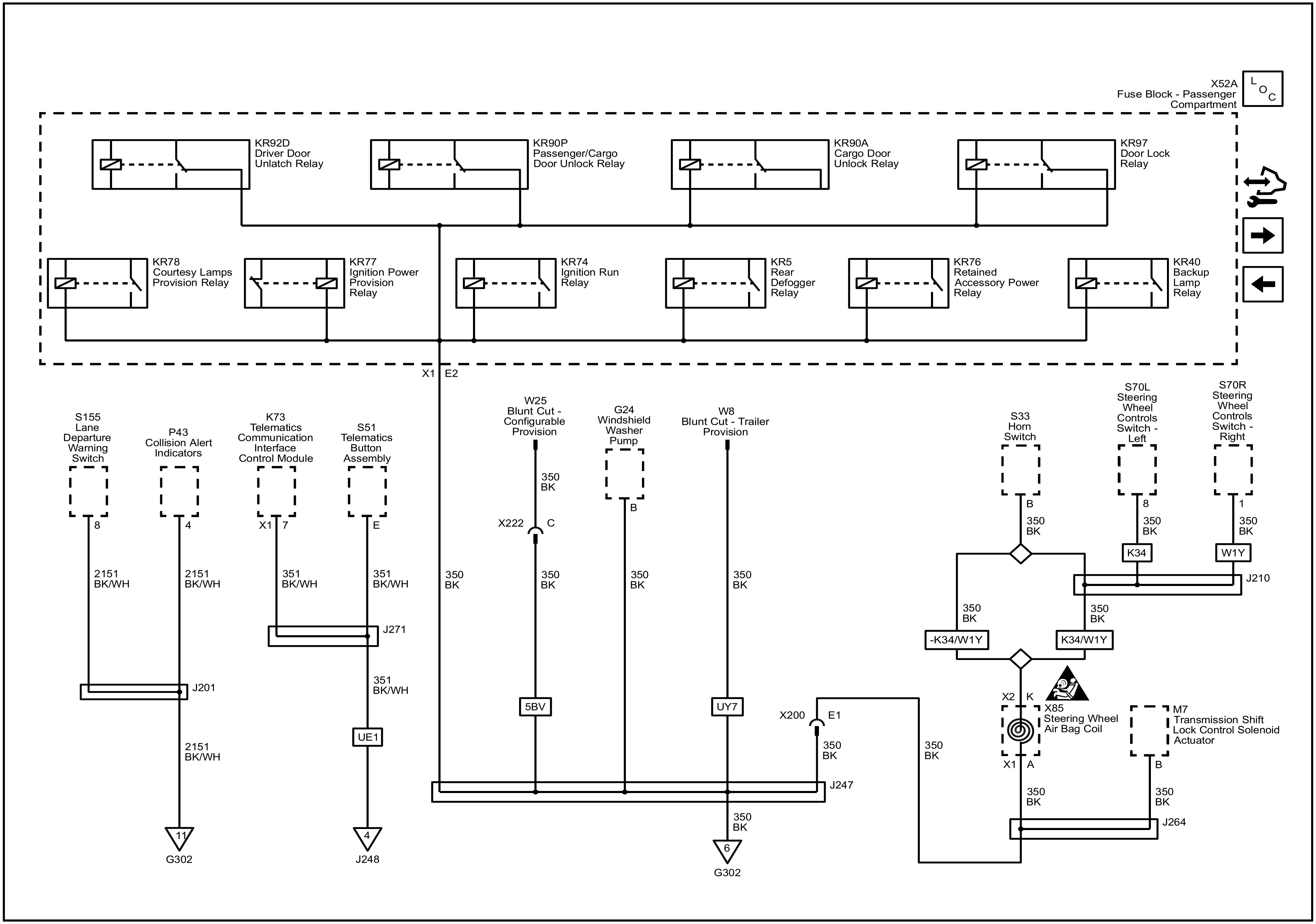
Ground Distribution Schematics (G103, G104, G105, G106, G107 and G108)


4940138
LOC
T8F Ignition Coil 6
T8D Ignition Coil 4
T8B Ignition Coil 2
T8E Ignition Coil 5
T8C Ignition Coil 3
T8A Ignition Coil 1
1
LV1
350 BK
J171
J170
K20 Engine Control Module
X3 73
X2 73
1551 BK/WH
G108
G107
G106
G105
G104
G103
50 BK
50 BARE
C1 Battery
+
-
KR81 Auxiliary Battery Relay 1
X1 B
TP2
J101
B198 Fuel Composition Sensor
2
X101 13
B75C Multifunction Intake Air Sensor
7
K20 Engine Control Module
X2 73
L96/LC8
T12 Automatic Transmission Assembly
Q8 Control Solenoid Valve Assembly
5
MYD
B20 Brake Fluid Level Switch
1
K71 Transmission Control Module
65
M5U

Ground Distribution Schematics (G300, G301, G304, and G305)

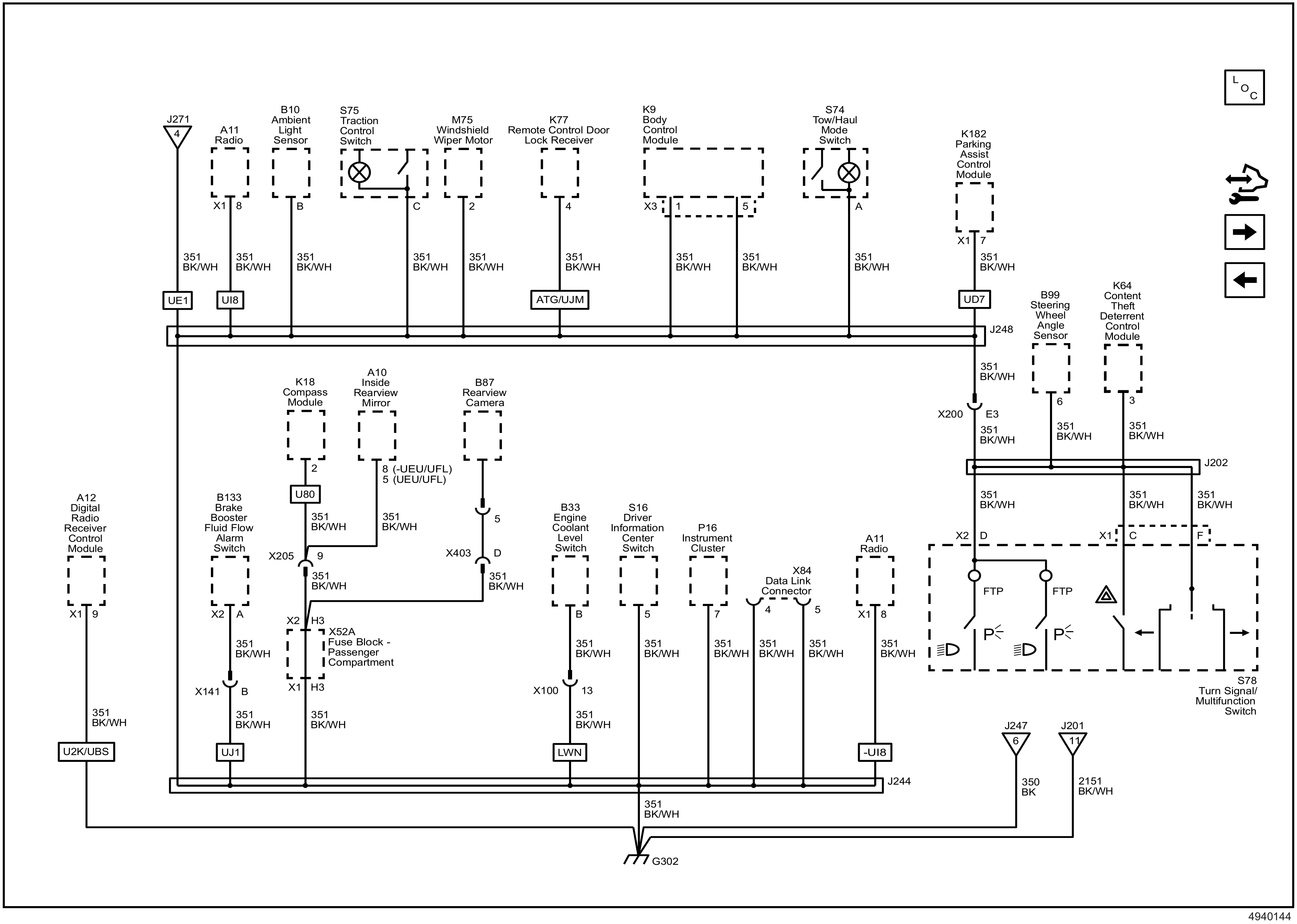

L O C
4940141
K17 Electronic Brake Control Module
13
38
K38 Chassis Control Module
25
E11A Fuel Heater/ Water in Fuel Sensor
B116 Water in Fuel Sensor
4
B218R Side Object Sensor Module - Right
8
3
B218L Side Object Sensor Module - Left
8
J426
2150 BK
7
X408
J315
K36 Inflatable Restraint Sensing and Diagnostic Module
X1 19
1751 BK/WH
A3
X318
S40 Passenger Air Bag Disable Switch
E
C99
G301
C1B Battery - Auxiliary
+
-
50 BK
LWN/TP2
G305
T1 Accessory DC/ AC Power Inverter Module
11
S34 HVAC Controls Switch Assembly
X1 B
X3 C
C49/DE5/DEB/C60
M6 Air Temperature Door Actuator
7
X80A Accessory Power Receptacle - Center Console 1
C
-DT4
E32 Cigarette Lighter Receptacle
C
DT4
X80B Accessory Power Receptacle - Center Console 2
C
550 BK
J249
G304
G300

Ground Distribution Schematics (G302 (1 of 2))

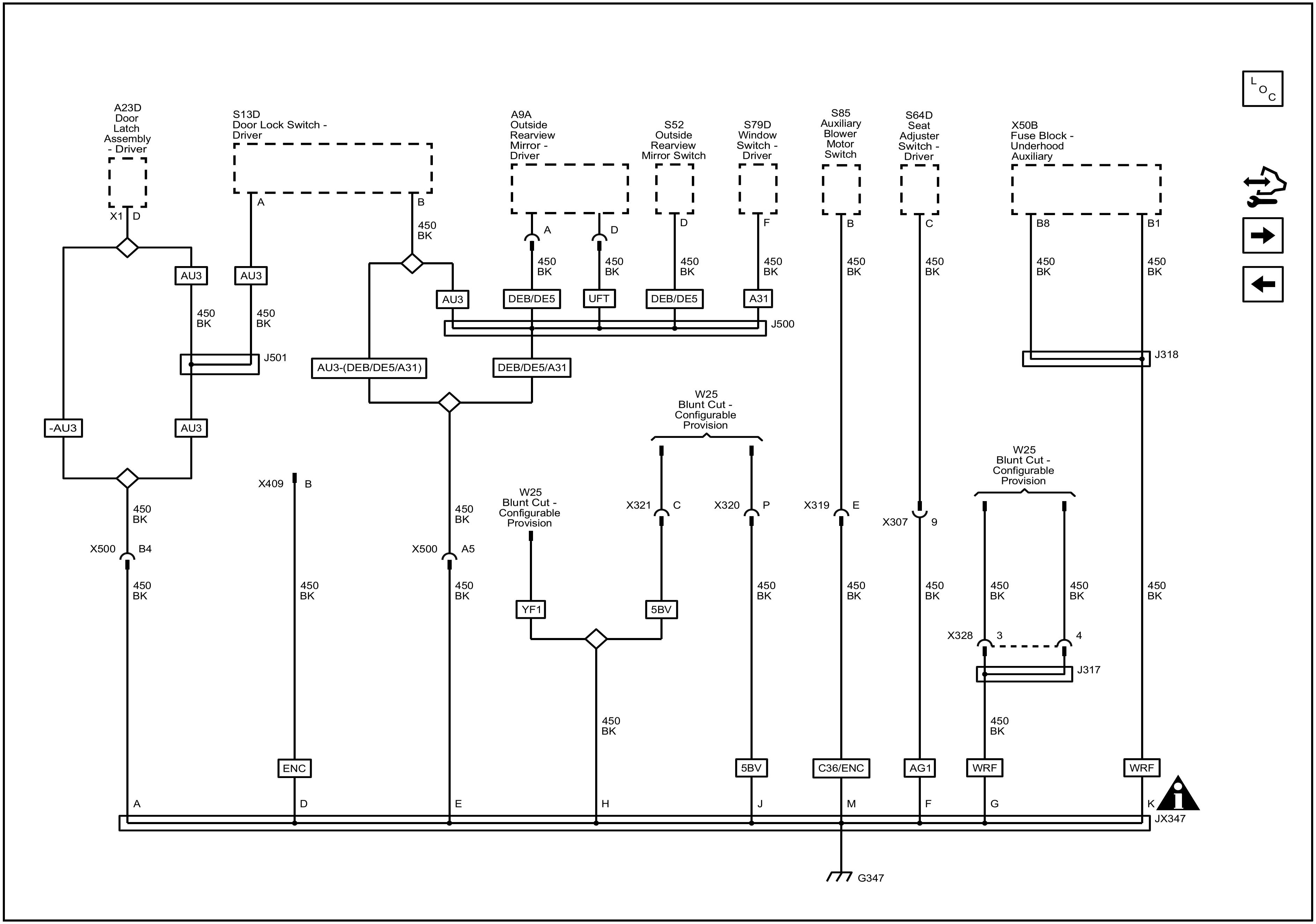

X52A
Fuse Block - Passenger Compartment
LOC
KR92D Driver Door Unlatch Relay
KR90P Passenger/Cargo Door Unlock Relay
KR90A Cargo Door Unlock Relay
KR97 Door Lock Relay
KR78 Courtesy Lamps Provision Relay
KR77 Ignition Power Provision Relay
KR74 Ignition Run Relay
KR5 Rear Defogger Relay
KR76 Retained Accessory Power Relay
KR40 Backup Lamp Relay
X1 E2
350 BK
S155 Lane Departure Warning Switch
8
2151 BK/WH
P43 Collision Alert Indicators
4
2151 BK/WH
J201
2151 BK/WH
11
G302
K73 Telematics Communication Interface Control Module
X1 7
351 BK/WH
S51 Telematics Button Assembly
E
351 BK/WH
J271
351 BK/WH
UE1
4
J248
W25 Blunt Cut - Configurable Provision
350 BK
X222 C
350 BK
5BV
G24 Windshield Washer Pump
B
350 BK
W8 Blunt Cut - Trailer Provision
350 BK
UY7
J247
350 BK
6
G302
X200 E1
350 BK
350 BK
S33 Horn Switch
B
350 BK
S70L Steering Wheel Controls Switch - Left
8
350 BK
K34
S70R Steering Wheel Controls Switch - Right
1
350 BK
W1Y
J210
350 BK
-K34/W1Y
350 BK
K34/W1Y
X2 K
X85 Steering Wheel Air Bag Coil
X1 A
350 BK
M7 Transmission Shift Lock Control Solenoid Actuator
B
350 BK
J264

4940143

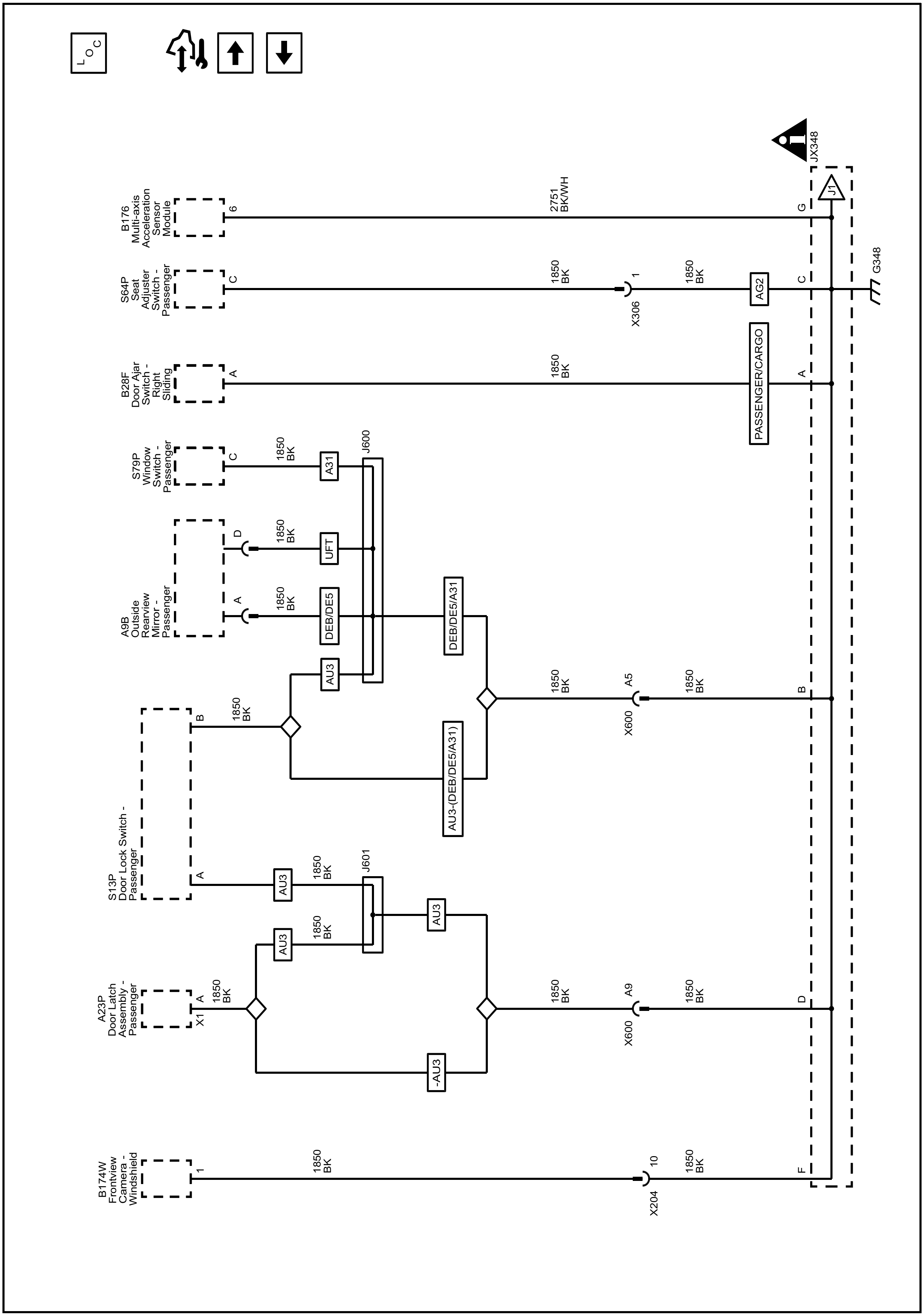
Ground Distribution Schematics (G302 (2 of 2))


J271
4
A11
Radio
X1 8
B10
Ambient
Light
Sensor
B
S75
Traction
Control
Switch
C
M75
Windshield
Wiper Motor
2
K77
Remote Control Door
Lock Receiver
4
K9
Body
Control
Module
X3 1
5
S74
Tow/Haul
Mode
Switch
A
K182
Parking
Assist
Control
Module
X1 7
351
BK/WH
UE1
UI8
ATG/UJM
UD7
J248
B99
Steering
Wheel
Angle
Sensor
6
K64
Content
Theft
Deterrent
Control
Module
3
X200
E3
J202
K18
Compass
Module
2
U80
A10
Inside
Rearview
Mirror
8 (-UEU/UFL)
5 (UEU/UFL)
B87
Rearview
Camera
5
X403
D
X205
9
X2 H3
X52A
Fuse Block -
Passenger
Compartment
X1 H3
A12
Digital
Radio
Receiver
Control
Module
X1 9
U2K/UBS
B133
Brake
Booster
Fluid Flow
Alarm
Switch
X2 A
X141
B
UJ1
B33
Engine
Coolant
Level
Switch
B
X100
13
LWN
S16
Driver
Information
Center
Switch
5
P16
Instrument
Cluster
7
X84
Data Link
Connector
4
5
A11
Radio
X1 8
-UI8
J244
X2 D
X1 C
F
FTP
FTP
S78
Turn Signal/
Multifunction
Switch
J247
6
J201
11
350
BK
2151
BK/WH
G302
4940144

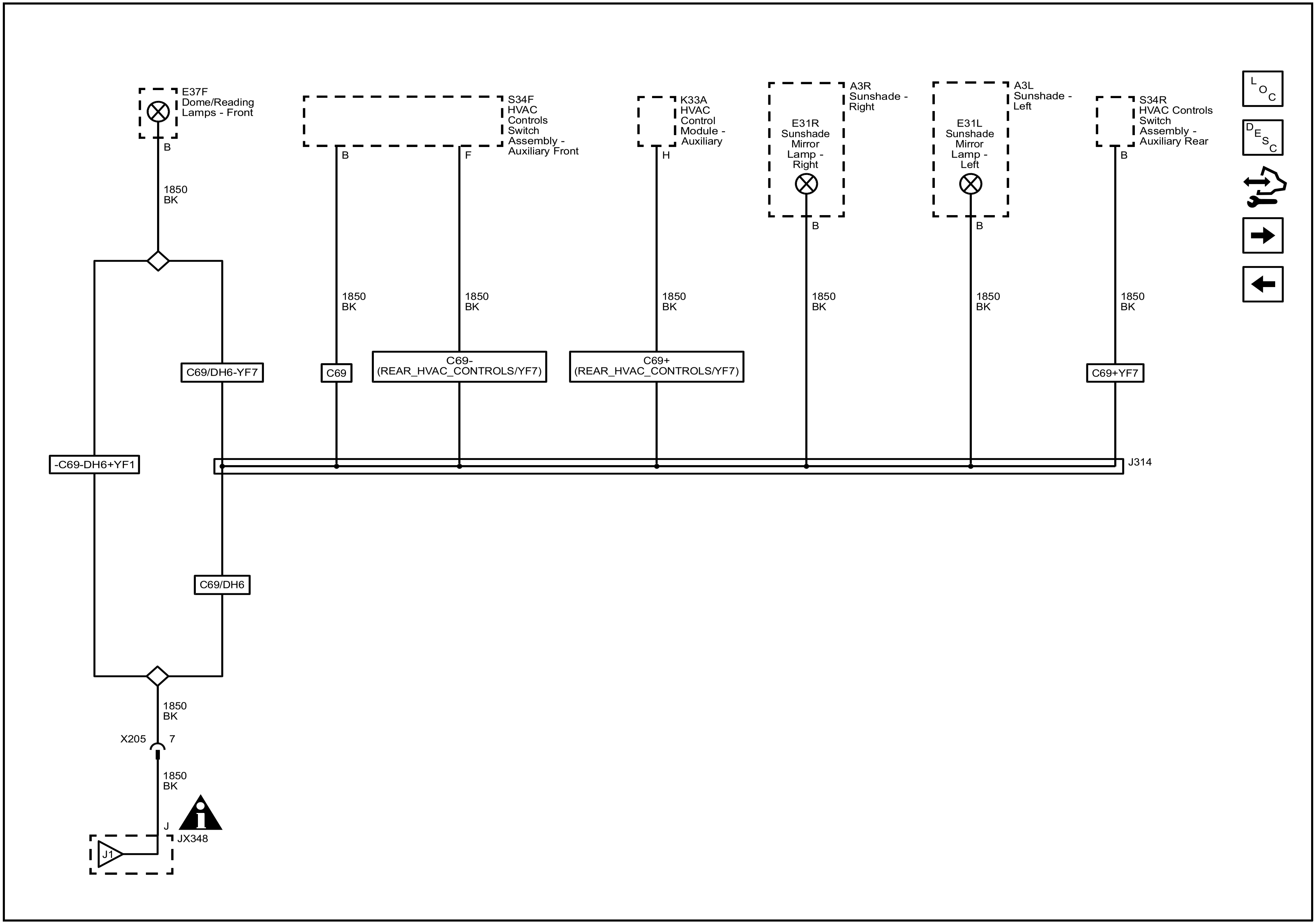
Ground Distribution Schematics (G347)


A23D
Door
Latch
Assembly
- Driver
X1 D
S13D
Door Lock Switch -
Driver
A
B
A9A
Outside
Rearview
Mirror -
Driver
S52
Outside
Rearview
Mirror Switch
S79D
Window
Switch -
Driver
S85
Auxiliary
Blower
Motor
Switch
S64D
Seat
Adjuster
Switch -
Driver
X50B
Fuse Block -
Underhood
Auxiliary
B8
B1
450
BK
AU3
-AU3
J501
J500
J318
DEB/DE5
UFT
A31
AU3-(DEB/DE5/A31)
DEB/DE5/A31
W25
Blunt Cut -
Configurable
Provision
X500 B4
X409 B
X500 A5
X321 C
X320 P
X319 E
X307 9
X328 3
4
J317
YF1
5BV
ENC
C36/ENC
AG1
WRF
A
D
E
H
J
M
F
G
K
JX347
G347
4940147

Ground Distribution Schematics (G348 (1 of 2))

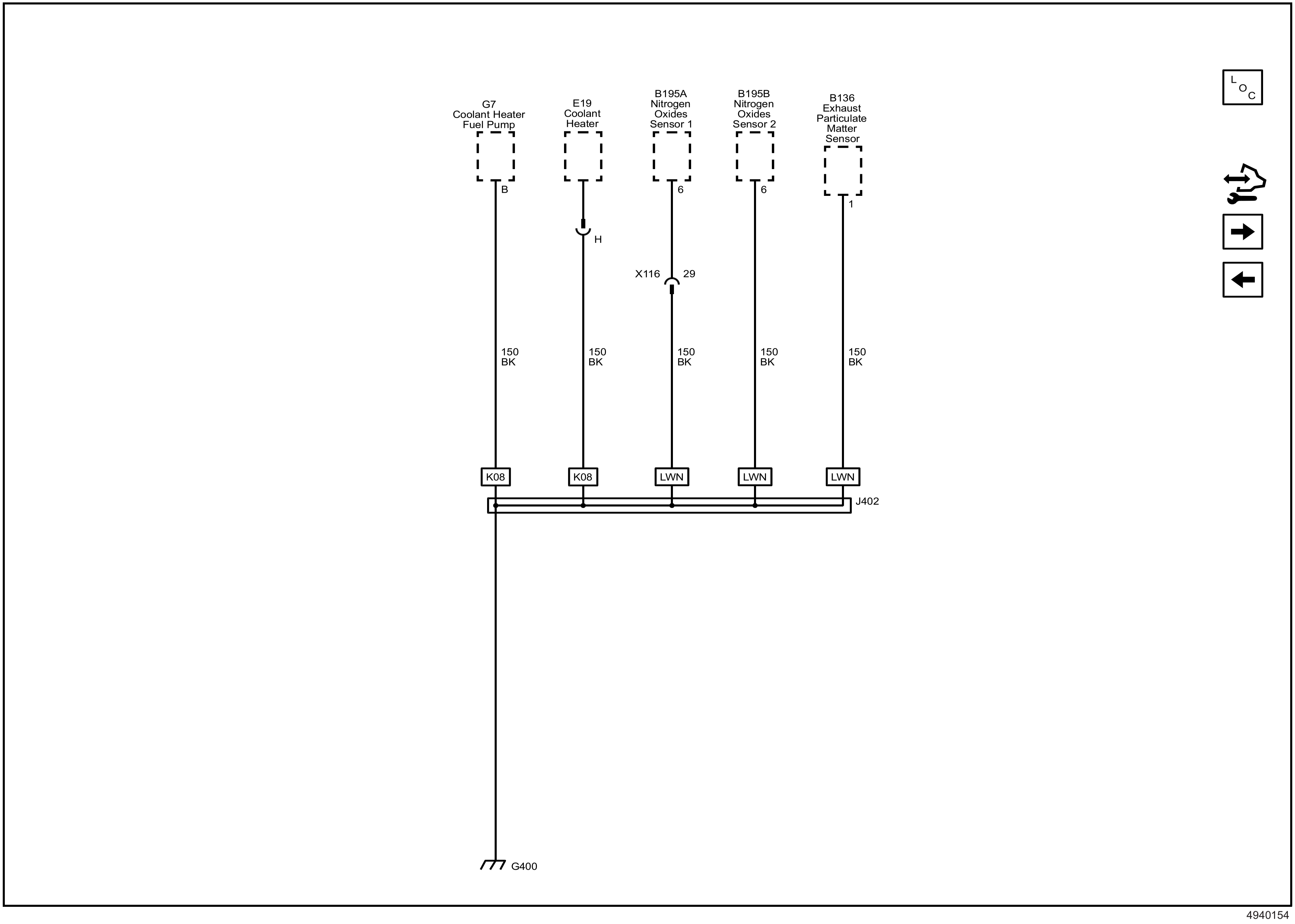

4940151
L O C
JX348
J1
G348
B176 Multi-axis Acceleration Sensor Module
6
2751 BK/WH
G
S64P Seat Adjuster Switch - Passenger
C
1850 BK
X306
1
1850 BK
AG2
C
B28F Door Ajar Switch - Right Sliding
A
1850 BK
PASSENGER/CARGO
A
S79P Window Switch - Passenger
C
1850 BK
A31
J600
A9B Outside Rearview Mirror - Passenger
D
1850 BK
UFT
A
1850 BK
DEB/DE5
DEB/DE5/A31
AU3
S13P Door Lock Switch - Passenger
B
1850 BK
AU3-(DEB/DE5/A31)
1850 BK
A5
X600
1850 BK
B
A
AU3
1850 BK
J601
AU3
1850 BK
AU3
A23P Door Latch Assembly - Passenger
X1 A
1850 BK
-AU3
1850 BK
A9
X600
1850 BK
D
B174W Frontview Camera - Windshield
1
1850 BK
10
X204
1850 BK
F

Ground Distribution Schematics (G348 (2 of 2))


E37F
Dome/Reading
Lamps - Front
B
1850
BK
S34F
HVAC
Controls
Switch
Assembly -
Auxiliary Front
B
F
K33A
HVAC
Control
Module -
Auxiliary
H
A3R
Sunshade -
Right
E31R
Sunshade
Mirror
Lamp -
Right
A3L
Sunshade -
Left
E31L
Sunshade
Mirror
Lamp -
Left
S34R
HVAC Controls
Switch
Assembly -
Auxiliary Rear
C69/DH6-YF7
C69
C69-
(REAR_HVAC_CONTROLS/YF7)
C69+
(REAR_HVAC_CONTROLS/YF7)
C69+YF7
-C69-DH6+YF1
J314
C69/DH6
X205
7
J
JX348
J1
LOC
DESC

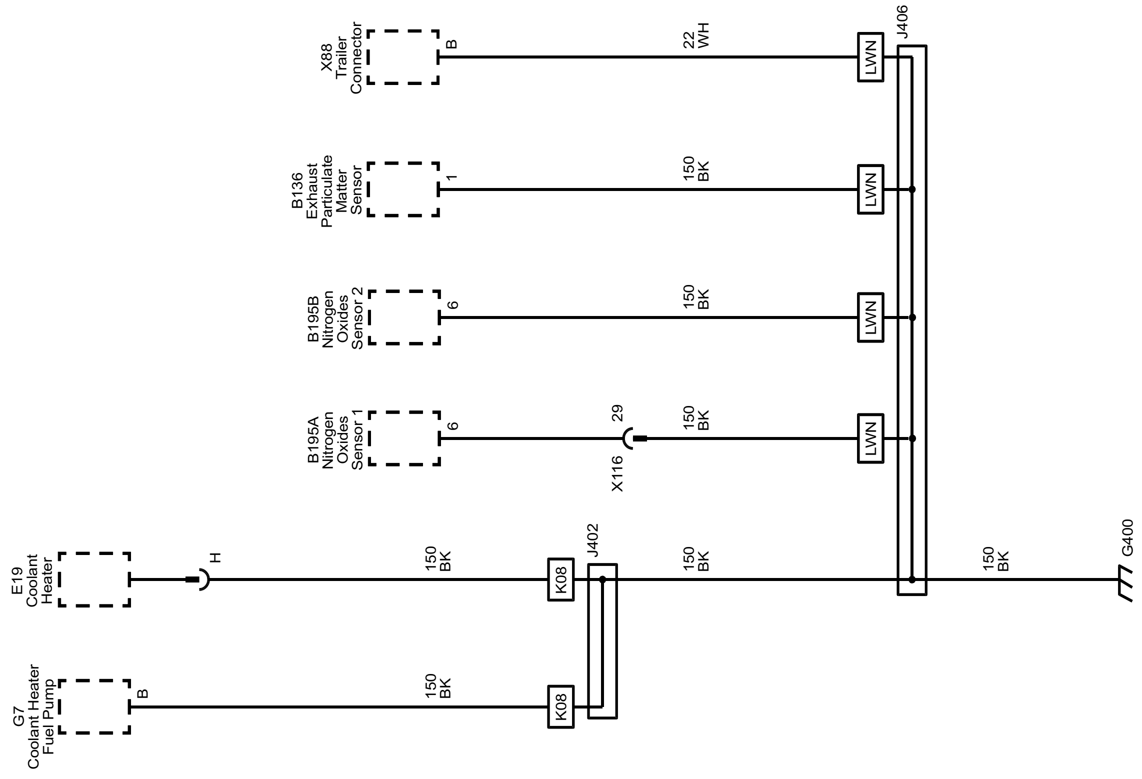
4940153

Ground Distribution Schematics (G400 (Without UY7))

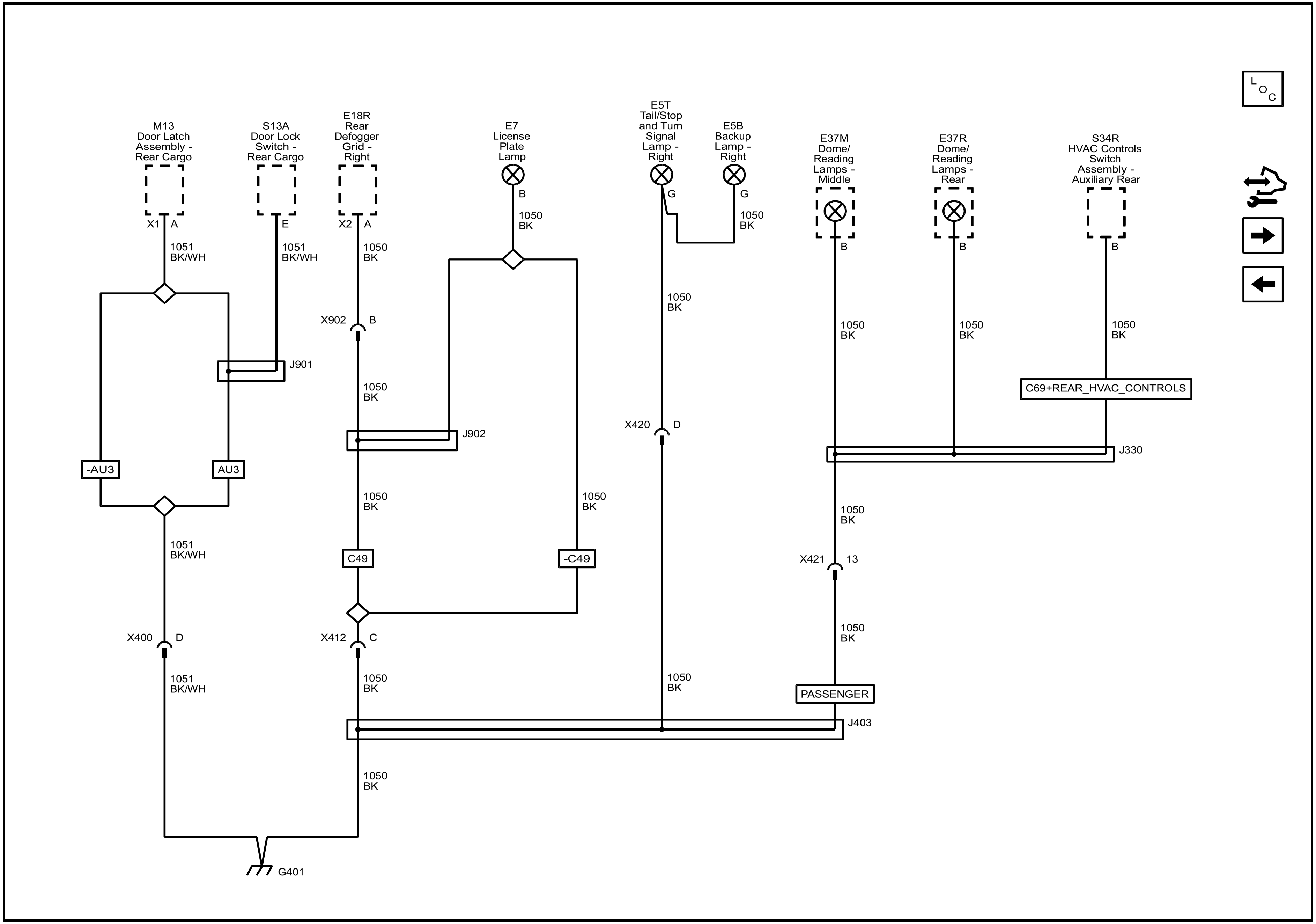

L O C
G7
Coolant Heater
Fuel Pump
E19
Coolant
Heater
B195A
Nitrogen
Oxides
Sensor 1
B195B
Nitrogen
Oxides
Sensor 2
B136
Exhaust
Particulate
Matter
Sensor
B
H
6
6
1
X116
29
150
BK
150
BK
150
BK
150
BK
150
BK
K08
K08
LWN
LWN
LWN
J402
G400
4940154

Ground Distribution Schematics (G400 (With UY7))

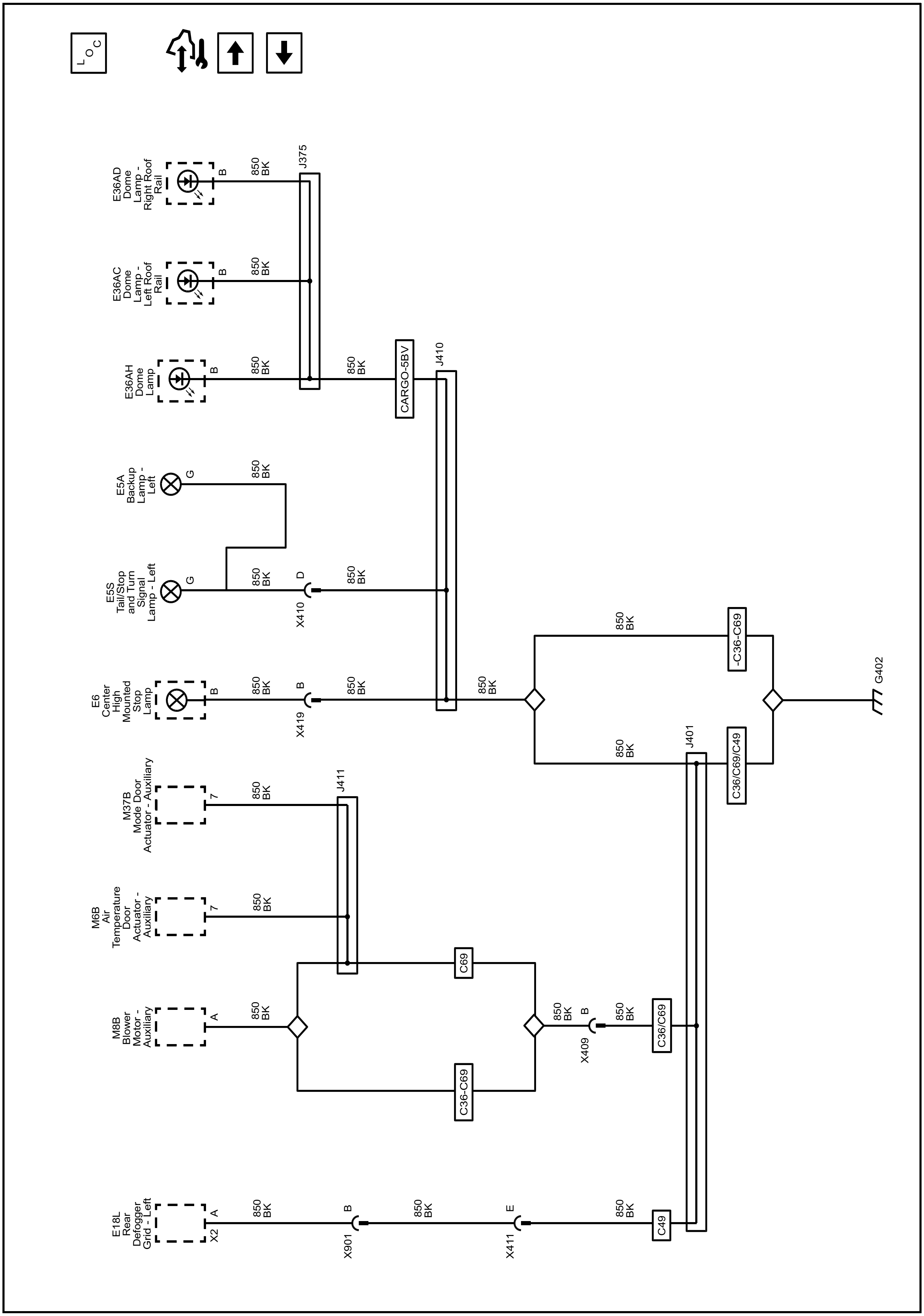
4940156


X88
Trailer
Connector
B
22
WH
LWN
J406
B136
Exhaust
Particulate
Matter
Sensor
1
150
BK
LWN
B195B
Nitrogen
Oxides
Sensor 2
6
150
BK
LWN
B195A
Nitrogen
Oxides
Sensor 1
6
29
X116
150
BK
LWN
E19
Coolant
Heater
H
150
BK
K08
J402
150
BK
150
BK
G400
G7
Coolant Heater
Fuel Pump
B
150
BK
K08

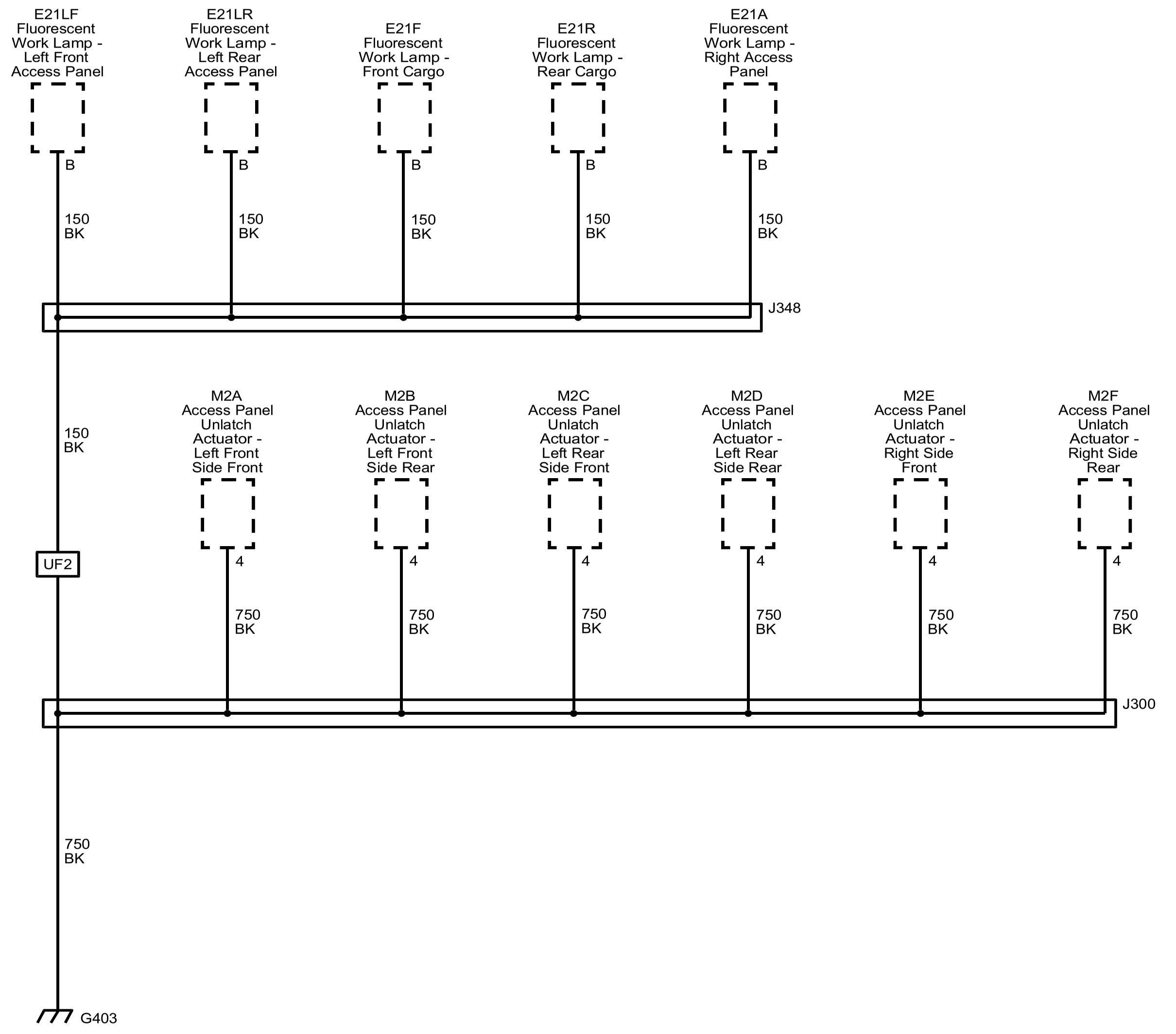
Ground Distribution Schematics (G401 (Passenger or Cargo))


L O C
M13
Door Latch
Assembly -
Rear Cargo
X1 A
1051
BK/WH
S13A
Door Lock
Switch -
Rear Cargo
E
1051
BK/WH
J901
-AU3
AU3
1051
BK/WH
X400 D
1051
BK/WH
E18R
Rear
Defogger
Grid -
Right
X2 A
1050
BK
X902 B
1050
BK
J902
1050
BK
C49
X412 C
1050
BK
1050
BK
G401
E7
License
Plate
Lamp
B
1050
BK
1050
BK
-C49
E5T
Tail/Stop
and Turn
Signal
Lamp -
Right
G
E5B
Backup
Lamp -
Right
G
1050
BK
1050
BK
X420 D
1050
BK
J403
E37M
Dome/
Reading
Lamps -
Middle
B
1050
BK
E37R
Dome/
Reading
Lamps -
Rear
B
1050
BK
S34R
HVAC Controls
Switch
Assembly -
Auxiliary Rear
B
1050
BK
C69+REAR_HVAC_CONTROLS
J330
1050
BK
X421 13
1050
BK
PASSENGER
4940157

Ground Distribution Schematics (G402 (Passenger or Cargo))


4940158
LOC
E36AD Dome Lamp - Right Roof Rail
E36AC Dome Lamp - Left Roof Rail
E36AH Dome Lamp
E5A Backup Lamp - Left
E5S Tail/Stop and Turn Signal Lamp - Left
E6 Center High Mounted Stop Lamp
M37B Mode Door Actuator - Auxiliary
M6B Air Temperature Door Actuator - Auxiliary
M8B Blower Motor - Auxiliary
E18L Rear Defogger Grid - Left
B
G
7
A
X2
850 BK
J375
J410
J411
J401
CARGO-5BV
D
X410
X419
X409
X901
X411
E
C69
C36-C69
C36/C69
C49
C36/C69/C49
-C36-C69
G402

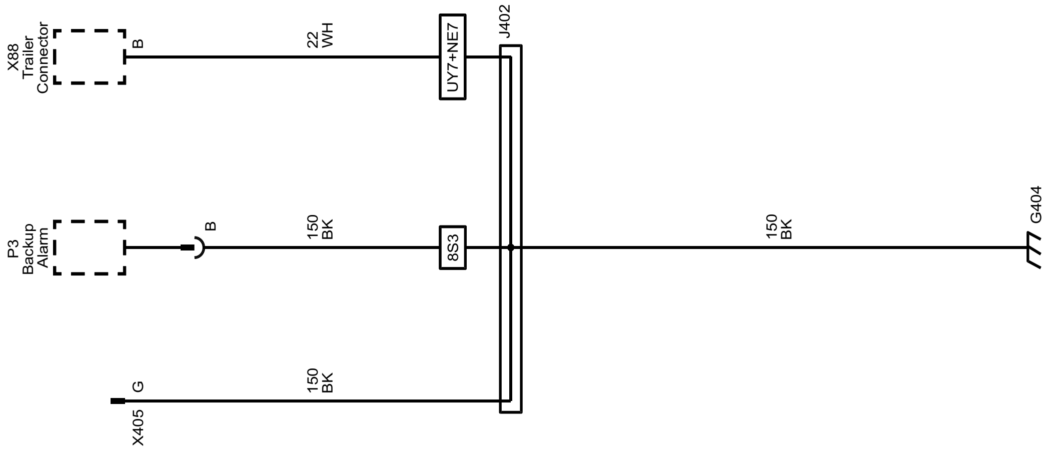
Ground Distribution Schematics (G403 (PRP))


E21LF Fluorescent Work Lamp - Left Front Access Panel
E21LR Fluorescent Work Lamp - Left Rear Access Panel
E21F Fluorescent Work Lamp - Front Cargo
E21R Fluorescent Work Lamp - Rear Cargo
E21A Fluorescent Work Lamp - Right Access Panel
B
150 BK
J348
150 BK
UF2
M2A Access Panel Unlatch Actuator - Left Front Side Front
M2B Access Panel Unlatch Actuator - Left Front Side Rear
M2C Access Panel Unlatch Actuator - Left Rear Side Front
M2D Access Panel Unlatch Actuator - Left Rear Side Rear
M2E Access Panel Unlatch Actuator - Right Side Front
M2F Access Panel Unlatch Actuator - Right Side Rear
4
750 BK
J300
750 BK
G403

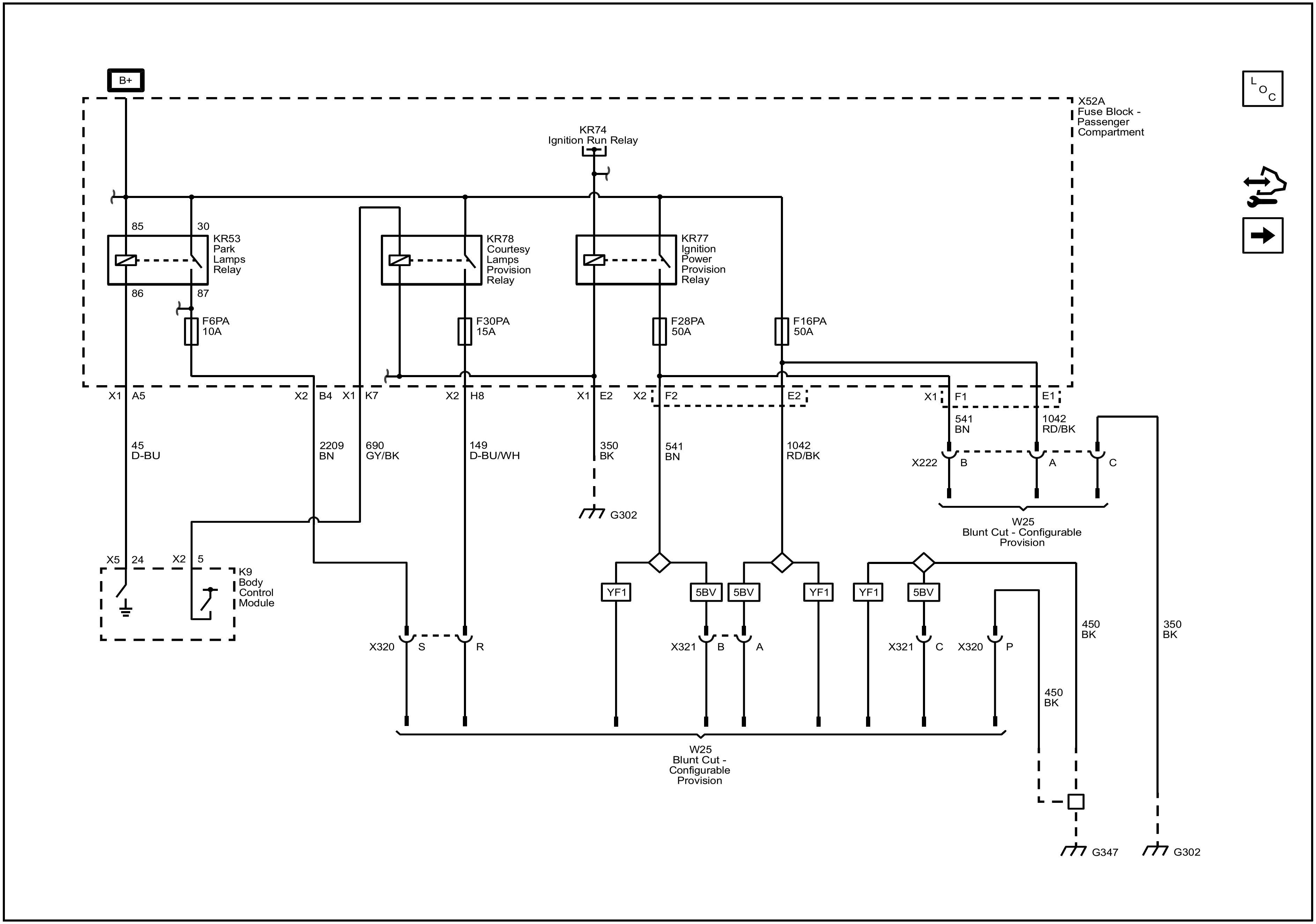
4940160

Ground Distribution Schematics (G404)

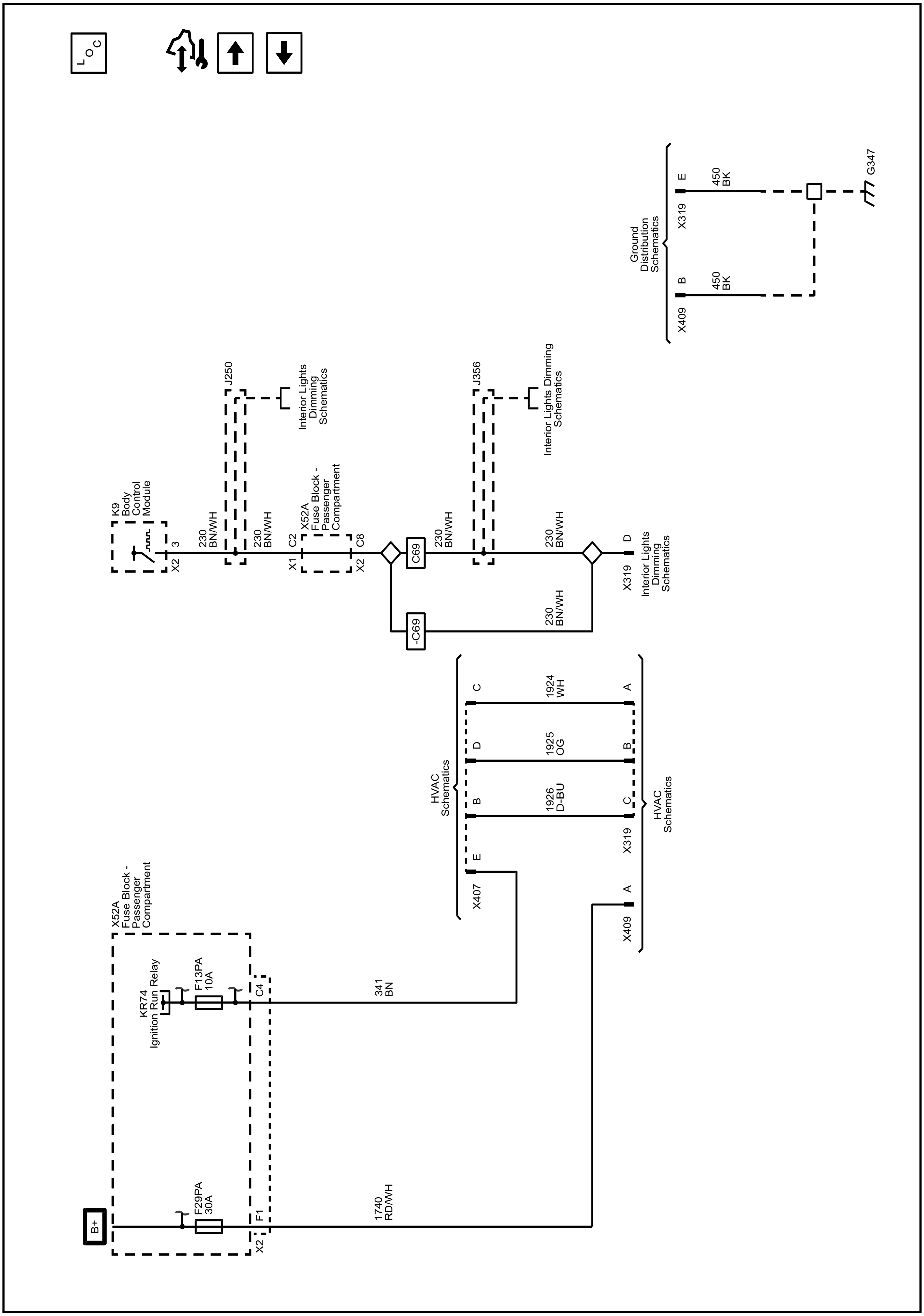
4940161


X88
Trailer
Connector
B
22
WH
UY7+NE7
J402
P3
Backup
Alarm
B
150
BK
8S3
150
BK
G404
X405
G
150
BK

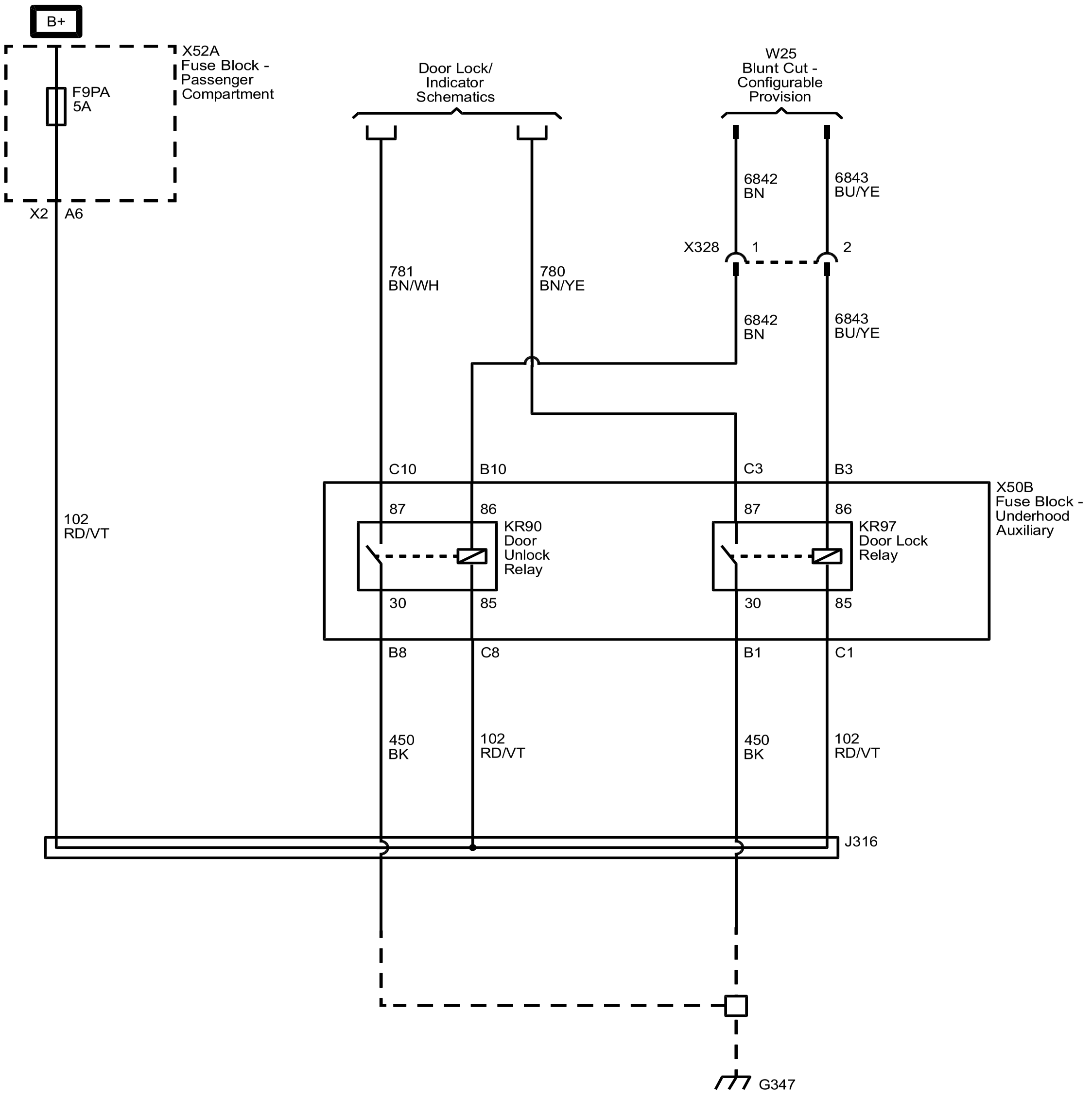
Upfitter Provision Schematics (Power, Ground, and Relay Controls)


B+
X52A
Fuse Block -
Passenger
Compartment
KR74
Ignition Run Relay
85
30
KR53
Park
Lamps
Relay
86
87
F6PA
10A
KR78
Courtesy
Lamps
Provision
Relay
F30PA
15A
KR77
Ignition
Power
Provision
Relay
F28PA
50A
F16PA
50A
X1 A5
X2 B4
X1 K7
X2 H8
X1 E2
X2 F2
E2
X1 F1
E1
45
D-BU
2209
BN
690
GY/BK
149
D-BU/WH
350
BK
541
BN
1042
RD/BK
541
BN
1042
RD/BK
X222
B
A
C
G302
W25
Blunt Cut - Configurable
Provision
X5 24
X2 5
K9
Body
Control
Module
YF1
5BV
5BV
YF1
YF1
5BV
X320
S
R
X321
B
A
X321
C
X320
P
450
BK
350
BK
450
BK
W25
Blunt Cut -
Configurable
Provision
G347
G302
4940163

Upfitter Provision Schematics (Rear Heat Auxiliary (ENC))

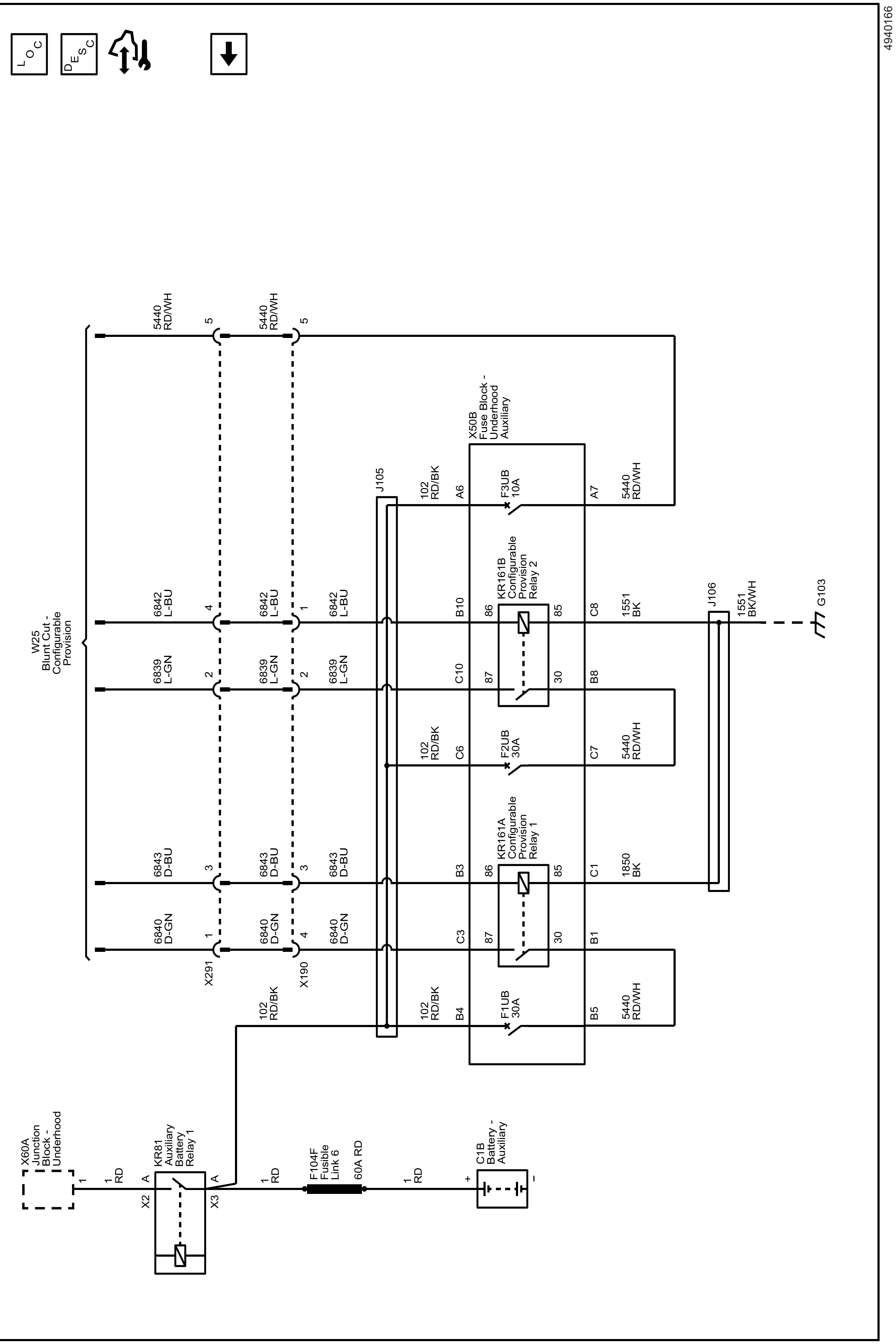

4940164
LOC
B+
X52A Fuse Block - Passenger Compartment
KR74 Ignition Run Relay
F13PA 10A
F29PA 30A
C4
F1
X2
341 BN
1740 RD/WH
X407
E
B
D
C
HVAC Schematics
1926 D-BU
1925 OG
1924 WH
X409
A
X319
C
B
A
HVAC Schematics
K9 Body Control Module
X2
3
230 BN/WH
J250
230 BN/WH
Interior Lights Dimming Schematics
X1
C2
X52A Fuse Block - Passenger Compartment
C8
X2
C69
-C69
230 BN/WH
J356
Interior Lights Dimming Schematics
230 BN/WH
230 BN/WH
D
X319
Interior Lights Dimming Schematics
Ground Distribution Schematics
X409
B
450 BK
X319
E
450 BK
G347

Upfitter Provision Schematics (Upfitter Fuse Block (AU3 with WRF))

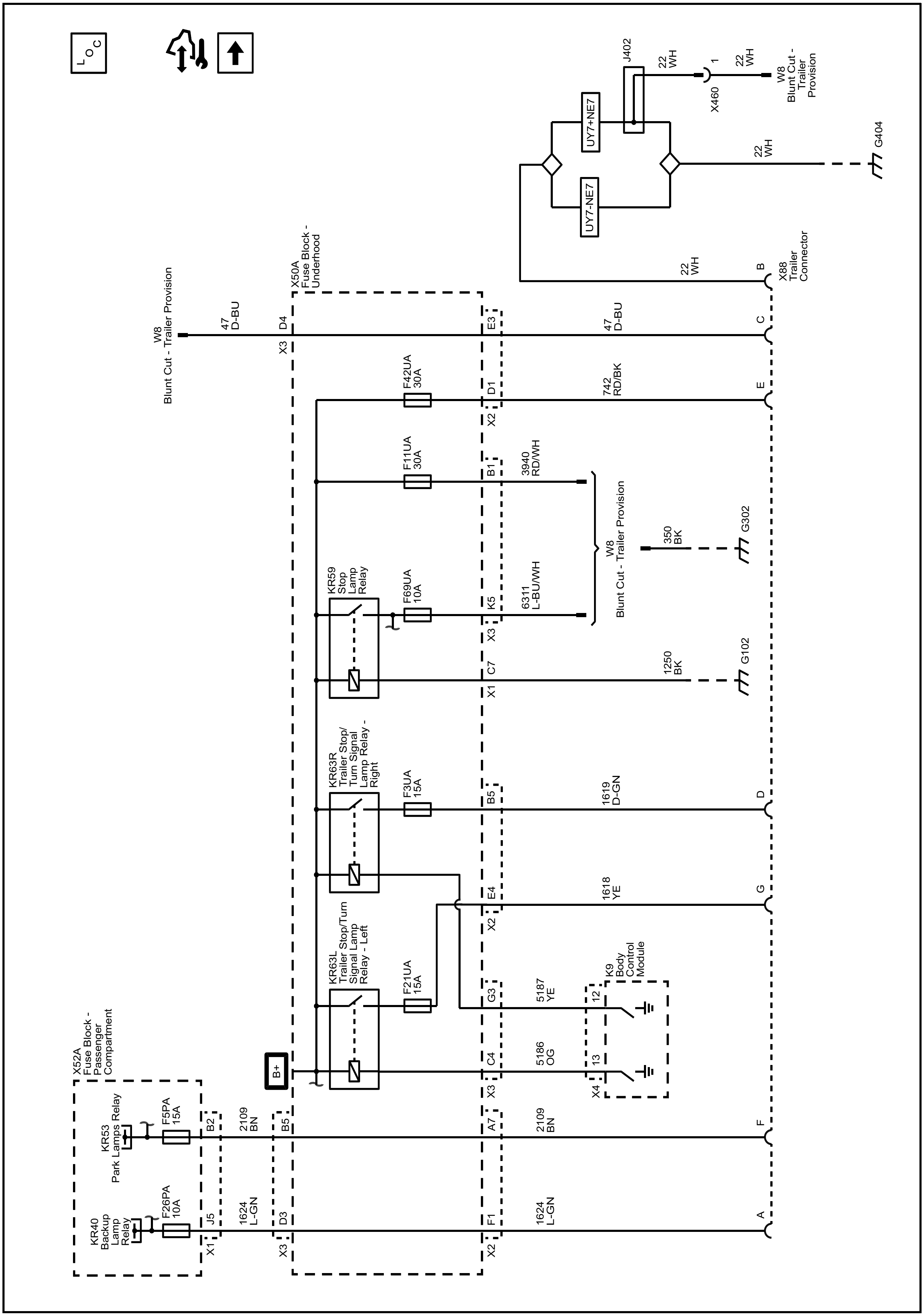

B+
X52A
Fuse Block -
Passenger
Compartment
F9PA
5A
X2
A6
102
RD/VT
Door Lock/
Indicator
Schematics
781
BN/WH
780
BN/YE
W25
Blunt Cut -
Configurable
Provision
6842
BN
6843
BU/YE
X328
1
2
6842
BN
6843
BU/YE
C10
B10
C3
B3
X50B
Fuse Block -
Underhood
Auxiliary
87
86
KR90
Door
Unlock
Relay
30
85
87
86
KR97
Door Lock
Relay
30
85
B8
C8
B1
C1
450
BK
102
RD/VT
450
BK
102
RD/VT
J316
G347

4940165

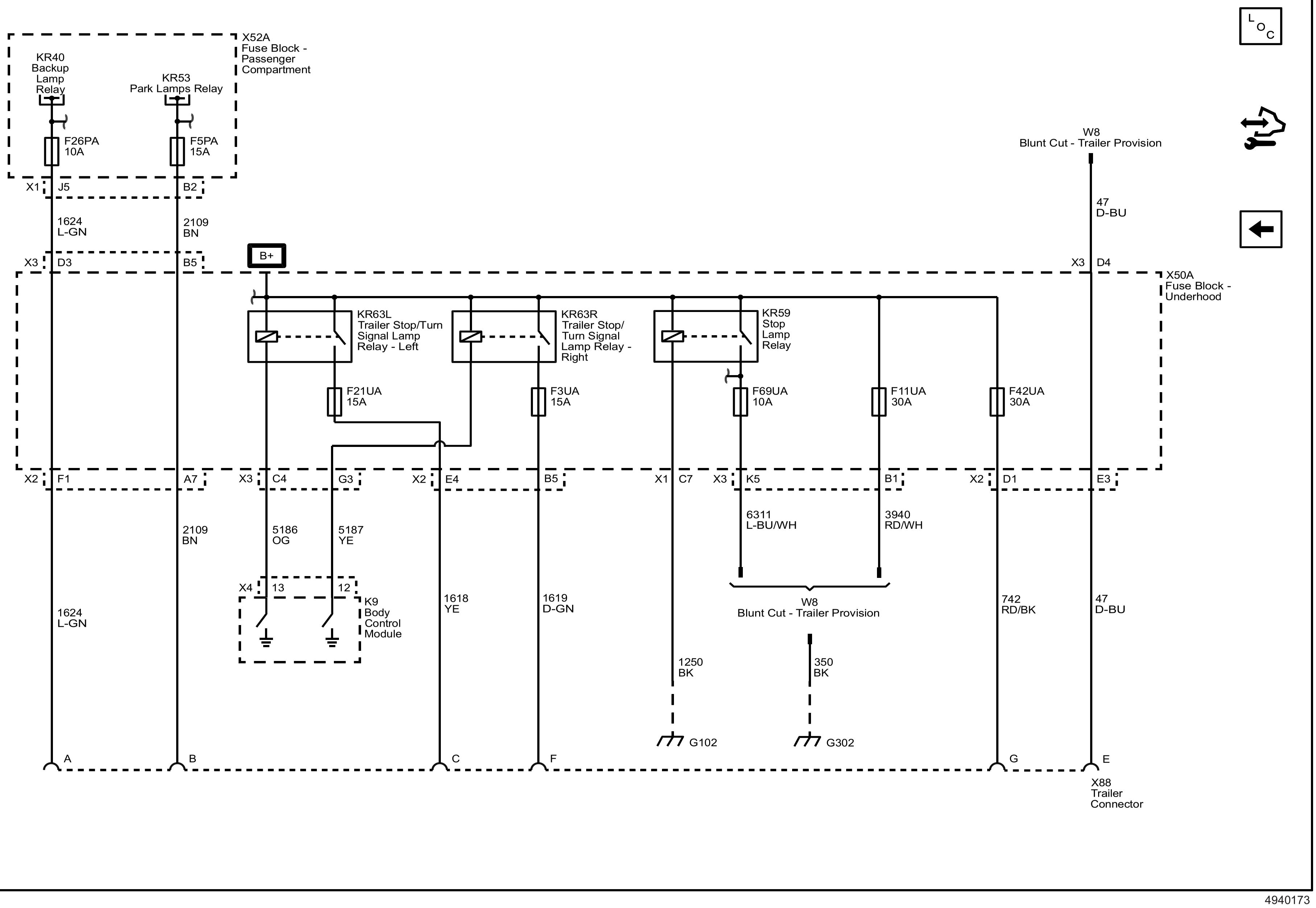
Upfitter Provision Schematics (Upfitter Fuse Block (9L7))


4940166
X60A Junction Block - Underhood
1
1 RD
A
KR81 Auxiliary Battery Relay 1
X2
X3
A
1 RD
F104F Fusible Link 6
60A RD
1 RD
+
C1B Battery - Auxiliary
–
102 RD/BK
W25 Blunt Cut - Configurable Provision
X291
X190
5440 RD/WH
5
6842 L-BU
4
1
6839 L-GN
2
6843 D-BU
3
6840 D-GN
1
4
J105
102 RD/BK
A6
F3UB 10A
A7
5440 RD/WH
X50B Fuse Block - Underhood Auxiliary
B10
86
KR161B Configurable Provision Relay 2
85
C8
1551 BK
J106
1551 BK/WH
G103
C10
87
30
B8
C6
F2UB 30A
C7
B3
KR161A Configurable Provision Relay 1
C1
1850 BK
C3
B1
B4
F1UB 30A
B5

Trailer Connector/Provision Schematics (Trailer Connector/Provision (UY7 without NE7))


L O C
4940167
W8 Blunt Cut - Trailer Provision
47 D-BU
X50A Fuse Block - Underhood
X3 D4
E3
F42UA 30A
D1 X2
742 RD/BK
F11UA 30A
B1
3940 RD/WH
W8 Blunt Cut - Trailer Provision
350 BK
G302
KR59 Stop Lamp Relay
F69UA 10A
K5 X3
6311 L-BU/WH
C7 X1
1250 BK
G102
KR63R Trailer Stop/ Turn Signal Lamp Relay - Right
F3UA 15A
B5
1619 D-GN
E4 X2
1618 YE
KR63L Trailer Stop/Turn Signal Lamp Relay - Left
F21UA 15A
G3
5187 YE
K9 Body Control Module
12
C4 X3
5186 OG
13 X4
B+
X52A Fuse Block - Passenger Compartment
KR53 Park Lamps Relay
F5PA 15A
B2
2109 BN
B5
A7
2109 BN
KR40 Backup Lamp Relay
F26PA 10A
J5 X1
1624 L-GN
D3 X3
F1 X2
1624 L-GN
J402
22 WH
1
X460
22 WH
W8 Blunt Cut - Trailer Provision
UY7+NE7
UY7-NE7
22 WH
G404
22 WH
B
X88 Trailer Connector
C
E
D
G
F
A

Trailer Connector/Provision Schematics (Trailer Connector/Provision (UY7 with NE7))


X52A
Fuse Block - Passenger Compartment
KR40
Backup Lamp Relay
KR53
Park Lamps Relay
F26PA
10A
F5PA
15A
X1
J5
B2
1624
L-GN
2109
BN
B+
X3
D3
B5
X50A
Fuse Block - Underhood
KR63L
Trailer Stop/Turn Signal Lamp Relay - Left
KR63R
Trailer Stop/ Turn Signal Lamp Relay - Right
KR59
Stop Lamp Relay
F21UA
15A
F3UA
15A
F69UA
10A
F11UA
30A
F42UA
30A
W8
Blunt Cut - Trailer Provision
47
D-BU
X3
D4
X2
F1
A7
X3
C4
G3
X2
E4
B5
X1
C7
X3
K5
B1
X2
D1
E3
2109
BN
5186
OG
5187
YE
6311
L-BU/WH
3940
RD/WH
X4
13
12
K9
Body Control Module
1624
L-GN
1618
YE
1619
D-GN
W8
Blunt Cut - Trailer Provision
742
RD/BK
47
D-BU
1250
BK
350
BK
G102
G302
A
B
C
F
G
E
X88
Trailer Connector
4940173

Component Locator

Master Electrical Component List

Code	Name	Option	Location	Locator View	Connector End View
A3L	Sunshade - Left	DH6	On the upper left of the headliner	—	*A3L Sunshade - Left*
A3R	Sunshade - Right	DH6	On the upper right of the headliner	—	*A3R Sunshade - Right*
A5	Driver Information Center	—	Integral to P16 Instrument Cluster	—	—
A7	Fuel Pump and Level Sensor Assembly	—	In the vehicle underbody, in the fuel tank	• *Fuel Tank Components (NE7)* • *Fuel Tank Components (Without NE7)*	*A7 Fuel Pump and Level Sensor Assembly*
A9A	Outside Rearview Mirror - Driver	DEB or DE5	Attached to the exterior of the left front door	*Driver Door Components*	*A9A Outside Rearview Mirror - Driver*
A9B	Outside Rearview Mirror - Passenger	DEB or DE5	Attached to the exterior of the right front door	*Front Passenger Door Components*	*A9B Outside Rearview Mirror - Passenger*
A10	Inside Rearview Mirror	—	In the passenger compartment, mounted at the top center of the windshield	—	• *A10 Inside Rearview Mirror (UEU/UFL)* • *A10 Inside Rearview Mirror (-UEU/UFL)*
A11	Radio	—	In the center of the instrument panel	*Instrument Panel Components (1 of 2)*	• *A11 Radio X1* • *A11 Radio X2*
A12	Digital Radio Receiver Control Module	U2K or UBS	In the passenger compartment, mounted on a bracket under driver knee bolster panel	*Underside of Instrument Panel Components*	*A12 Digital Radio Receiver Control Module X1*
A23D	Door Latch Assembly - Driver	—	Towards the rear of the driver door	*Driver Door Components*	• *A23D Door Latch Assembly - Driver X1* • *A23D Door Latch Assembly - Driver X2*
A23P	Door Latch Assembly - Passenger	—	Towards the rear of the passenger door	*Front Passenger Door Components*	• *A23P Door Latch Assembly - Passenger X1* • *A23P Door Latch Assembly - Passenger X2*
A39	Reductant Fluid Reservoir Assembly	—	Under the vehicle, toward the rear, inside the reductant fluid tank	*Reductant Tank Components*	*A39 Reductant Fluid Reservoir Assembly*
A91	Mirror Display	UVC	Internal to A10 Inside Rearview Mirror	—	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
B1	A/C Refrigerant Pressure Sensor	C60	On the engine harness in the left rear side of the engine compartment	• *Engine Compartment Components (2 of 2)* • *Front of Engine Compartment Components (1 of 2)* • *Left Front of the Engine Components (LWN)*	*B1 A/C Refrigerant Pressure Sensor*
B1B	A/C Low Side Pressure Switch	C60	Right rear side of the engine compartment, on the side of the accumulator	• *Front of Engine Compartment Components (1 of 2)* • *Front of Engine Compartment Components (2 of 2)*	*B1B A/C Low Side Pressure Switch*
B5LF	Wheel Speed Sensor - Left Front	—	At the left front wheel	• *Frame and Underbody Components (1 of 2)* • *Front Wheel Speed Sensor Components*	*B5LF Wheel Speed Sensor - Left Front*
B5LR	Wheel Speed Sensor - Left Rear	—	At the left rear wheel, attached to the backing plate	*Frame and Underbody Components (1 of 2)*	*B5LR Wheel Speed Sensor - Left Rear*
B5RF	Wheel Speed Sensor - Right Front	—	At the right front wheel	• *Frame and Underbody Components (1 of 2)* • *Front Wheel Speed Sensor Components*	• *B5RF Wheel Speed Sensor - Right Front (LWN)* • *B5RF Wheel Speed Sensor - Right Front (-LWN)*
B5RR	Wheel Speed Sensor - Right Rear	—	At the right rear wheel, attached to the backing plate	*Frame and Underbody Components (1 of 2)*	*B5RR Wheel Speed Sensor - Right Rear*
B9	Ambient Air Temperature Sensor	—	Attached to the front center of the radiator support	*Ambient Air Temperature Sensor (UFA)*	• *B9 Ambient Air Temperature Sensor (LV1)* • *B9 Ambient Air Temperature Sensor (LWN)* • *B9 Ambient Air Temperature Sensor (UFA)*
B10	Ambient Light Sensor	—	On the top of the instrument panel	*Instrument Panel Components (2 of 2)*	*B10 Ambient Light Sensor*
B12A	Transmission Fluid Pressure Switch	—	Internal to T12 Automatic Transmission Assembly	—	—
B13	Transmission Fluid Temperature Sensor	—	Internal to T12 Automatic Transmission Assembly	—	*B13 Transmission Fluid Temperature Sensor*
B14A	Transmission Output Shaft Speed Sensor	—	Internal to T12 Automatic Transmission Assembly	*Automatic Transmission Internal Electrical Components*	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
B14C	Transmission Input Shaft Speed Sensor	—	Internal to T12 Automatic Transmission Assembly	—	—
B14D	Transmission Intermediate Shaft Speed Sensor	—	Under the vehicle, internal to the Transmision Assembly	—	—
B15	Transmission Internal Mode Switch	—	Internal to T12 Automatic Transmission Assembly	—	*B15 Transmission Internal Mode Switch (M5U)*
B18	Battery Current Sensor	—	Attached to the negative terminal of the battery	—	*B18 Battery Current Sensor*
B19A	Brake Booster Fluid Pressure Alarm Switch	UJ1	In the power steering inlet hose, near the power steering pump	*Brake Booster Fluid Alarm Switches (UJ1)*	*B19A Brake Booster Fluid Pressure Alarm Switch*
B20	Brake Fluid Level Switch	—	Left rear of the engine compartment, attached to the left lower side of the brake fluid reservoir	• *Engine Compartment Components (1 of 2)* • *Upper Left Side of the Engine Components (LV1)*	*B20 Brake Fluid Level Switch*
B22	Brake Pedal Position Sensor	—	Attached to brake pedal assembly	*Instrument Panel Components (2 of 2)*	*B22 Brake Pedal Position Sensor*
B23	Camshaft Position Sensor	—	Front of the engine between the water pump and the crank pulley	• *Left Front Side of the Engine Components (L96 or LC8)* • *Left Front Side of the Engine Components (L96 or LC8)* • *Left Front Side of the Engine Components (LV1)* • *Right Front of Engine Components (LWN)*	• *B23 Camshaft Position Sensor (L96/LC8)* • *B23 Camshaft Position Sensor (LV1)* • *B23 Camshaft Position Sensor (LWN)*
B24	Mobile Telephone Microphone	UE1 or UI8	In the passenger compartment, in the overhead console	—	*B24 Mobile Telephone Microphone*
B26	Crankshaft Position Sensor	—	Attached to the lower right rear side of the engine, behind the starter	• *Left Front of the Engine Components (LWN)* • *Right Front Side of the Engine Components (L96 or LC8)*	• *B26 Crankshaft Position Sensor (L96/LC8)* • *B26 Crankshaft Position Sensor (LWN/LV1)*
B28F	Door Ajar Switch - Right Sliding	Cargo or Passenger	Mounted towards the bottom of the right rear door	• *Front of the Passenger Compartment Components* • *Right Side Hinged Door Components (E24)* • *Right Sliding Door Components (YA2)*	*B28F Door Ajar Switch - Right Sliding*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
B33	Engine Coolant Level Switch	LWN	Right front of the engine compartment, attached to the bottom of the coolant surge tank	• *Front of Engine Compartment Components (1 of 2)* • *Front of Engine Compartment Components (2 of 2)*	*B33 Engine Coolant Level Switch*
B34	Engine Coolant Temperature Sensor	—	• On the left cylinder head at exhaust port 1 (L96/LC8) • Attached to the engine coolant thermostat housing (LWN)	• *Left Front Side of the Engine Components (L96 or LC8)* • *Left Front Side of the Engine Components (LV1)* • *Left Side of Engine Components (LWN)* • *Right Front Side of the Engine Components (LV1)*	• *B34 Engine Coolant Temperature Sensor (L96/LC8)* • *B34 Engine Coolant Temperature Sensor (LV1)* • *B34 Engine Coolant Temperature Sensor (LWN)*
B35	Engine Oil Level Switch	—	Attached to the left side of the oil pan	• *Right Front of Engine Components (LWN)* • *Right Front Side of the Engine Components (LV1)*	• *B35 Engine Oil Level Switch (LV1)* • *B35 Engine Oil Level Switch (LWN)*
B37B	Engine Oil Pressure Sensor	—	In engine compartment, on the rear lower left side of the engine	• *Left Front Side of the Engine Components (LV1)* • *Right Front of Engine Components (LWN)* • *Right Front Side of the Engine Components (L96 or LC8)*	• *B37B Engine Oil Pressure Sensor (L96/LC8)* • *B37B Engine Oil Pressure Sensor (LWN/LV1)*
B46	Fuel Level Sensor	LV1, L96, or LC8	Under the vehicle, in the fuel tank	• *Frame and Underbody Components (2 of 2)* • *Inside of Fuel Tank Components*	—
B47	Fuel Pressure Sensor	—	Under the vehicle , near the fuel tank	—	• *B47 Fuel Pressure Sensor (CUTAWAY)* • *B47 Fuel Pressure Sensor (-CUTAWAY)*
B47B	Fuel Rail Pressure Sensor	—	In the engine compartment, on top of the engine, mounted to the rear of the right fuel rail	• *Right Rear of Engine Components (LWN)* • *Top of the Engine Components (LV1)*	• *B47B Fuel Rail Pressure Sensor (LV1)* • *B47B Fuel Rail Pressure Sensor (LWN)*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
B48	Fuel Temperature Sensor	—	Under the vehicle, near the transmission, located with the fuel filter	—	—
B52C	Heated Oxygen Sensor - Bank 1 Sensor 1	—	Attached to the left front exhaust pipe, front of the catalytic converter	• *Exhaust Components (L96 or LC8)* • *Exhaust Components (LV1)*	• *B52C Heated Oxygen Sensor - Bank 1 Sensor 1 (L96/LC8)* • *B52C Heated Oxygen Sensor - Bank 1 Sensor 1 (LV1)*
B52D	Heated Oxygen Sensor - Bank 1 Sensor 2	—	Attached to the left front exhaust pipe, back of the catalytic converter	• *Exhaust Components (L96 or LC8)* • *Exhaust Components (LV1)*	*B52D Heated Oxygen Sensor - Bank 1 Sensor 2*
B52E	Heated Oxygen Sensor - Bank 2 Sensor 1	—	Attached to the right front exhaust pipe, front of the catalytic converter	• *Exhaust Components (L96 or LC8)* • *Exhaust Components (LV1)*	*B52E Heated Oxygen Sensor - Bank 2 Sensor 1*
B52F	Heated Oxygen Sensor - Bank 2 Sensor 2	—	Attached to the right front exhaust pipe, rear of the catalytic converter	• *Exhaust Components (L96 or LC8)* • *Exhaust Components (LV1)*	• *B52F Heated Oxygen Sensor - Bank 2 Sensor 2 (L96/LC8)* • *B52F Heated Oxygen Sensor - Bank 2 Sensor 2 (LV1)*
B55	Engine Hood Switch	BTV	In the center front of the engine compartment, attached to the hood latch assembly	—	*B55 Engine Hood Switch*
B59	Front Impact Sensor	—	On the lower center of the radiator support	*Front of Engine Compartment Components (1 of 2)*	*B59 Front Impact Sensor*
B63LF	Side Impact Sensor - Left Front	ASF	In the left front side door	*Driver Door Components*	*B63LF Side Impact Sensor - Left Front*
B63LR	Side Impact Sensor - Left Rear	ASF	In the left center of the vehicle behind the body panel trim	*Left Rear Cargo Area Components (Passenger or Cargo)*	*B63LR Side Impact Sensor - Left Rear*
B63RF	Side Impact Sensor - Right Front	ASF	In the right front side door	*Front Passenger Door Components*	*B63RF Side Impact Sensor - Right Front*
B63RR	Side Impact Sensor - Right Rear	ASF	In the lower right side of the vehicle near the rear side door	• *Right Rear Frame Rail Components (Passenger with E24)* • *Right Rear Frame Rail Components (Passenger with YA2)*	*B63RR Side Impact Sensor - Right Rear*
B65	Intake Manifold Pressure and Air Temperature Sensor	LWN	In the engine compartment, attached to the intake manifold, on top of the engine	*Top of Engine Components (LWN)*	*B65 Intake Manifold Pressure and Air Temperature Sensor*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
B68A	Knock Sensor 1	—	Mounted to the lower right side of the engine in-between the engine oil pan and the right bank exhaust manifold	• *Left Side of the Engine Components (LV1)* • *Lower Right Side of the Engine Components (L96 or LC8)* • *Right Front Side of the Engine Components (L96 or LC8)*	• *B68A Knock Sensor 1 (L96/LC8)* • *B68A Knock Sensor 1 (LV1)*
B68B	Knock Sensor 2	—	Mounted to the lower left of the engine, in-between the engine oil filter and the left bank exhaust manifold	• *Left Front Side of the Engine Components (L96 or LC8)* • *Right Front Side of the Engine Components (LV1)*	• *B68B Knock Sensor 2 (L96/LC8)* • *B68B Knock Sensor 2 (LV1)*
B74	Manifold Absolute Pressure Sensor	—	In the engine compartment, attached to the intake manifold, on top of the engine	• *Left Front Side of the Engine Components (L96 or LC8)* • *Right Front Side of the Engine Components (L96 or LC8)* • *Top of the Engine Components (L96 or LC8)* • *Upper Left Side of the Engine Components (LV1)*	• *B74 Manifold Absolute Pressure Sensor (L96/LC8)* • *B74 Manifold Absolute Pressure Sensor (LV1)*
B75C	Multifunction Intake Air Sensor	—	Right front of the engine compartment, mounted in the air cleaner duct	• *Engine Compartment Components (2 of 2)* • *Right Rear of Engine Components (LWN)* • *Upper Left Side of the Engine Components (LV1)*	*B75C Multifunction Intake Air Sensor*
B80	Park Brake Switch	—	Left lower side of the instrument panel on the brake pedal assembly	*Instrument Panel Components (2 of 2)*	*B80 Park Brake Switch*
B87	Rearview Camera	UVC	On the right rear cargo door, in license plate trim	*Rear Exterior Lights (Passenger or Cargo)*	• *B87 Rearview Camera (CARGO/ PASSENGER)* • *B87 Rearview Camera (CUTAWAY)*
B88D	Seat Belt Switch - Driver	—	Right side of the driver seat, inside Seat Belt Buckle — Driver	—	—
B88P	Seat Belt Switch - Passenger	AK5	Left side of the front passenger seat, inside Seat Belt Buckle — Passenger	—	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
B99	Steering Wheel Angle Sensor	—	Attached the lower steering column jacket assembly	*Steering Column Components (2 of 2)*	*B99 Steering Wheel Angle Sensor*
B107	Accelerator Pedal Position Sensor	—	Left lower side of the instrument panel, above the accelerator pedal	*Instrument Panel Components (2 of 2)*	*B107 Accelerator Pedal Position Sensor*
B116	Water in Fuel Sensor	—	In the engine compartment, at the right rear of the engine, mounted in the bottom of the fuel filter	—	—
B130A	Exhaust Gas Recirculation Temperature Sensor 1	LWN	In the engine compartment, on the top left rear side of the engine	*Right Rear of Engine Components (LWN)*	*B130A Exhaust Gas Recirculation Temperature Sensor 1*
B130B	Exhaust Gas Recirculation Temperature Sensor 2	LWN	In the engine compartment, on the top right front side of the engine	*Right Rear of Engine Components (LWN)*	*B130B Exhaust Gas Recirculation Temperature Sensor 2*
B131A	Exhaust Temperature Sensor 1	LWN	In the engine compartment, attached to the exhaust pipe, on the top left rear side of the engine	*Right Rear of Engine Components (LWN)*	*B131A Exhaust Temperature Sensor 1*
B131B	Exhaust Temperature Sensor 2	LWN	Under the vehicle, attached to the exhaust pipe, near the rear of the catalytic converter	*Right Rear of Engine Components (LWN)*	*B131B Exhaust Temperature Sensor 2*
B131C	Exhaust Temperature Sensor 3	LWN	Under the vehicle, attached to the exhaust pipe, at the middle of the diesel particulate filter	—	*B131C Exhaust Temperature Sensor 3*
B131D	Exhaust Temperature Sensor 4	LWN	Under the vehicle, attached to the exhaust pipe, near the rear of the diesel particulate filter	—	*B131D Exhaust Temperature Sensor 4*
B131E	Exhaust Temperature Sensor 5	LWN	Under the vehicle, attached to the exhaust pipe, after the diesel particulate filter	—	*B131E Exhaust Temperature Sensor 5*
B133	Brake Booster Fluid Flow Alarm Switch	UJ1	In the power steering outlet hose, near the power steering pump	*Brake Booster Fluid Alarm Switches (UJ1)*	• *B133 Brake Booster Fluid Flow Alarm Switch X1* • *B133 Brake Booster Fluid Flow Alarm Switch X2*
B134A	Coolant Heater Air Temperature Sensor	K08	Internal to E19 Coolant Heater	*Coolant Heater Components (K08)*	—
B134B	Coolant Heater Combustion Sensor	K08	Internal to E19 Coolant Heater	*Coolant Heater Components (K08)*	—
B134C	Coolant Heater Overheat Sensor	K08	Internal to E19 Coolant Heater	*Coolant Heater Components (K08)*	—
B135	Coolant Heater Temperature Sensor	K08	Internal to E19 Coolant Heater	—	—
B136	Exhaust Particulate Matter Sensor	LWN	Mounted to the exhaust, towards the rear of the engine harness	—	*B136 Exhaust Particulate Matter Sensor*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
B150	Fuel Tank Pressure Sensor	L96/LC8/LV1	Attached to the top of the fuel sender assembly	• *Fuel Tank Components (NE7)* • *Fuel Tank Components (Without NE7)*	*B150 Fuel Tank Pressure Sensor*
B153D	Seat Belt Buckle - Driver	—	Right side of the driver seat	*Driver Seat Components*	*B153D Seat Belt Buckle - Driver*
B153P	Seat Belt Buckle - Passenger	AK5	Left side of the front passenger seat	*Passenger Seat Components*	*B153P Seat Belt Buckle - Passenger*
B154	Diesel Particulate Filter Exhaust Differential Pressure Sensor	LWN	Under the vehicle, near the rear of the catalytic converter	—	*B154 Diesel Particulate Filter Exhaust Differential Pressure Sensor*
B174W	Frontview Camera - Windshield	UFL	In the passenger compartment, mounted at the top center of the windshield	—	*B174W Frontview Camera - Windshield*
B176	Multi-axis Acceleration Sensor Module	—	In the passenger compartment, on the front center on the floor board between the front seats	• *Frame and Underbody Components (1 of 2)* • *Front of the Passenger Compartment Components*	*B176 Multi-axis Acceleration Sensor Module*
B193A	Charge Air Cooler Inlet Temperature Sensor	LWN	In the engine compartment, attached to the intake manifold, front of the turbocharger	*Right Rear of Engine Components (LWN)*	*B193A Charge Air Cooler Inlet Temperature Sensor*
B193B	Charge Air Cooler Outlet Temperature Sensor	LWN	On the top right front of the engine compartment, near the coolant surge tank	• *Front of Engine Compartment Components (2 of 2)* • *Left Side of Engine Components (LWN)*	*B193B Charge Air Cooler Outlet Temperature Sensor*
B194	Reductant Pressure Sensor	LWN	Under the vehicle, above the reductant tank	—	—
B195A	Nitrogen Oxides Sensor 1	LWN	Under the vehicle	*Right Rear of Engine Components (LWN)*	*B195A Nitrogen Oxides Sensor 1*
B195B	Nitrogen Oxides Sensor 2	LWN	Under the vehicle	—	*B195B Nitrogen Oxides Sensor 2*
B198	Fuel Composition Sensor	L96	Under the vehicle	—	*B198 Fuel Composition Sensor (FHS)*
B213	Reductant Level Sensor	LWN	Under the vehicle, toward the rear, inside the reductant fluid tank	—	—
B214	Reductant Temperature Sensor	LWN	Under the vehicle, toward the rear, inside the reductant fluid tank	—	—
B218L	Side Object Sensor Module - Left	UFT	At the rear of the vehicle, in the rear bumper, at the left corner	—	*B218L Side Object Sensor Module - Left*
B218R	Side Object Sensor Module - Right	UFT	At the rear of the vehicle, in the rear bumper, at the right corner	—	*B218R Side Object Sensor Module - Right*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
B295	Reductant Quality Sensor	LWN	Under the vehicle, mounted to the outboard side of the frame, below the passenger side of the cab attached to the reductant fluid inlet line near the reductant pump and sensor assembly	*Reductant Tank Components*	*B295 Reductant Quality Sensor*
B306E	Parking Assist Sensor - Rear Left Outer	UD7	At the rear of the vehicle, housed in the rear fascia	*Rear Exterior Lights (Passenger or Cargo)*	*B306E Parking Assist Sensor - Rear Left Outer*
B306F	Parking Assist Sensor - Rear Left Middle	UD7	At the rear of the vehicle, housed in the rear fascia	*Rear Exterior Lights (Passenger or Cargo)*	*B306F Parking Assist Sensor - Rear Left Middle*
B306G	Parking Assist Sensor - Rear Right Middle	UD7	At the rear of the vehicle, housed in the rear fascia	*Rear Exterior Lights (Passenger or Cargo)*	*B306G Parking Assist Sensor - Rear Right Middle*
B306H	Parking Assist Sensor - Rear Right Outer	UD7	At the rear of the vehicle, housed in the rear fascia	*Rear Exterior Lights (Passenger or Cargo)*	*B306H Parking Assist Sensor - Rear Right Outer*
C1	Battery	—	At the right front side of the engine compartment	• *Engine Compartment Components (1 of 2)* • *Front of Engine Compartment Components (2 of 2)*	• *C1 Battery ((-))* • *C1 Battery ((+))*
C1B	Battery - Auxiliary	LWN or TP2	Left frame rail, center of the vehicle	*Frame and Underbody Components (2 of 2)*	• *C1B Battery - Auxiliary (L96/LC8)* • *C1B Battery - Auxiliary (LV1+TP2)* • *C1B Battery - Auxiliary (LWN)* • *C1B Battery - Auxiliary (LWN+TP2)*
E2LF	Side Marker Lamp - Left Front	—	In the left front corner of the vehicle	• *Front Exterior Lighting (Base)* • *Front Exterior Lighting (Uplevel)*	*E2LF Side Marker Lamp - Left Front*
E2RF	Side Marker Lamp - Right Front	—	In the right front corner of the vehicle	• *Front Exterior Lighting (Base)* • *Front Exterior Lighting (Uplevel)*	*E2RF Side Marker Lamp - Right Front*
E4E	Headlamp - Left High Beam	V22	At the left front of the vehicle	*Front Exterior Lighting (Uplevel)*	*E4E Headlamp - Left High Beam (V22)*
E4F	Headlamp - Right High Beam	V22	At the right front of the vehicle	*Front Exterior Lighting (Uplevel)*	*E4F Headlamp - Right High Beam (V22)*
E4G	Headlamp - Left Low Beam	V22	At the left front of the vehicle	*Front Exterior Lighting (Uplevel)*	*E4G Headlamp - Left Low Beam (V22)*
E4H	Headlamp - Right Low Beam	V22	At the right front of the vehicle	*Front Exterior Lighting (Uplevel)*	*E4H Headlamp - Right Low Beam (V22)*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
E4N	Park/Turn Signal Lamp - Left	—	In the left front corner of the vehicle	• *Front Exterior Lighting (Base)* • *Front Exterior Lighting (Uplevel)*	*E4N Park/Turn Signal Lamp - Left*
E4P	Park/Turn Signal Lamp - Right	—	In the right front corner of the vehicle	• *Front Exterior Lighting (Base)* • *Front Exterior Lighting (Uplevel)*	*E4P Park/Turn Signal Lamp - Right*
E5A	Backup Lamp - Left	—	Attached to the left tail lamp assembly	*Rear Exterior Lights (Passenger or Cargo)*	*E5A Backup Lamp - Left*
E5B	Backup Lamp - Right	—	Attached to the right tail lamp assembly	*Rear Exterior Lights (Passenger or Cargo)*	*E5B Backup Lamp - Right*
E5S	Tail/Stop and Turn Signal Lamp - Left	Passenger or Cargo	Attached to the left tail lamp assembly, upper bulb	*Rear Exterior Lights (Passenger or Cargo)*	*E5S Tail/Stop and Turn Signal Lamp - Left*
E5T	Tail/Stop and Turn Signal Lamp - Right	Passenger or Cargo	Attached to the right tail lamp assembly, upper bulb	*Rear Exterior Lights (Passenger or Cargo)*	*E5T Tail/Stop and Turn Signal Lamp - Right*
E6	Center High Mounted Stop Lamp	Passenger or Cargo	At the top rear center of the vehicle	*Rear Exterior Lights (Passenger or Cargo)*	*E6 Center High Mounted Stop Lamp*
E7	License Plate Lamp	Passenger or Cargo	Attached to the outer right cargo door, above the license plate mount	*Rear Exterior Lights (Passenger or Cargo)*	*E7 License Plate Lamp*
E11	Fuel Heater	LWN	In the engine compartment, at the right rear of the engine, mounted in the bottom of the fuel filter	—	—
E11A	Fuel Heater/Water in Fuel Sensor	LWN	Under the vehicle, near the transmission, located with the fuel filter	—	*E11A Fuel Heater/ Water in Fuel Sensor*
E12A	Glow Plug 1	LWN	In the engine compartment, on the top left of the engine	*Top of Engine Components (LWN)*	*E12A Glow Plug 1*
E12B	Glow Plug 2	LWN	In the engine compartment, on the top left of the engine	*Top of Engine Components (LWN)*	*E12B Glow Plug 2*
E12C	Glow Plug 3	LWN	In the engine compartment, on the top left of the engine	*Top of Engine Components (LWN)*	*E12C Glow Plug 3*
E12D	Glow Plug 4	LWN	In the engine compartment, on the top left of the engine	*Top of Engine Components (LWN)*	*E12D Glow Plug 4*
E13L	Headlamp - Left	Without V22	At the left front of the vehicle	*Front Exterior Lighting (Base)*	*E13L Headlamp - Left (-V22)*
E13R	Headlamp - Right	Without V22	At the right front of the vehicle	*Front Exterior Lighting (Base)*	*E13R Headlamp - Right (-V22)*
E18L	Rear Defogger Grid - Left	C49	Attached to the left cargo door window	*Rear Door Components (Passenger or Cargo)*	• *E18L Rear Defogger Grid - Left X1* • *E18L Rear Defogger Grid - Left X2*
E18R	Rear Defogger Grid - Right	C49	Attached to the right cargo door window	*Rear Door Components (Passenger or Cargo)*	• *E18R Rear Defogger Grid - Right X1* • *E18R Rear Defogger Grid - Right X2*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
E19	Coolant Heater	K08	Attached to the left front inner frame rail	- *Coolant Heater Components (K08)* - *Frame and Underbody Components (2 of 2)*	*E19 Coolant Heater*
E20	Coolant Heater Glow Plug	K08	Internal to E19 Coolant Heater	*Coolant Heater Components (K08)*	—
E21A	Fluorescent Work Lamp - Right Access Panel	PRP	Mounted towards the right of the top access panel	—	*E21A Fluorescent Work Lamp - Right Access Panel*
E21F	Fluorescent Work Lamp - Front Cargo	PRP	Mounted towards the top front of the cargo area	—	*E21F Fluorescent Work Lamp - Front Cargo*
E21LF	Fluorescent Work Lamp - Left Front Access Panel	PRP	At the front and towards the top of the left access panel	—	*E21LF Fluorescent Work Lamp - Left Front Access Panel*
E21LR	Fluorescent Work Lamp - Left Rear Access Panel	PRP	Mounted towards the top of the right access panel	—	*E21LR Fluorescent Work Lamp - Left Rear Access Panel*
E21R	Fluorescent Work Lamp - Rear Cargo	PRP	Mounted towards the top rear of the cargo area	—	*E21R Fluorescent Work Lamp - Rear Cargo*
E22	Underhood Lamp	—	In the engine compartment, attached to the left inner hood panel	*Underside of Hood Components*	*E22 Underhood Lamp*
E31L	Sunshade Mirror Lamp - Left	DH6	On the upper left of the headliner, inside the Sunshade — Left	*Headliner Components*	—
E31R	Sunshade Mirror Lamp - Right	DH6	On the upper right of the headliner, in the Sunshade — Right	*Headliner Components*	—
E32	Cigarette Lighter Receptacle	DT4	Slightly below and to the left of the radio	*Instrument Panel Components (1 of 2)*	*E32 Cigarette Lighter Receptacle (DT4)*
E36AC	Dome Lamp - Left Roof Rail	Cargo Without YF7	In the rear of the roof panel	—	*E36AC Dome Lamp - Left Roof Rail*
E36AD	Dome Lamp - Right Roof Rail	Cargo Without YF7	In the rear of the roof panel	—	*E36AD Dome Lamp - Right Roof Rail*
E36AH	Dome Lamp	Cargo Without YF7	In the rear of the roof panel	—	*E36AH Dome Lamp*
E37F	Dome/Reading Lamps - Front	Without YF7	In the front of the roof panel	*Headliner Components*	*E37F Dome/Reading Lamps - Front*
E37M	Dome/Reading Lamps - Middle	Passenger	In the center of the roof panel	*Headliner Components*	*E37M Dome/Reading Lamps - Middle*
E37R	Dome/Reading Lamps - Rear	Passenger	In the rear of the roof panel	*Headliner Components*	*E37R Dome/Reading Lamps - Rear*
E45	Positive Crankcase Ventilation Heater	LWN	In the engine compartment, attached to the top front of the engine	*Right Front of Engine Components (LWN)*	*E45 Positive Crankcase Ventilation Heater*
E52	Reductant Line Heater	LWN	Under the vehicle, above the reductant tank	*Reductant Tank Components*	*E52 Reductant Line Heater*
E53	Reductant Tank Heater	LWN	Under the vehicle, inside the reductant tank	—	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
F101	Passenger Instrument Panel Air Bag	—	Right side of the instrument panel	• *Instrument Panel Components (1 of 2)* • *Instrument Panel Components (2 of 2)*	*F101 Passenger Instrument Panel Air Bag*
F105LF	Roof Rail Air Bag - Left Front	ASF	Behind the left side of the headliner trim	*Front of the Passenger Compartment Components*	*F105LF Roof Rail Air Bag - Left Front*
F105RF	Roof Rail Air Bag - Right Front	ASF	Behind the right side of the headliner trim	*Front of the Passenger Compartment Components*	*F105RF Roof Rail Air Bag - Right Front*
F105RR	Roof Rail Air Bag - Right Rear	ASF	Behind the right rear side of the headliner trim	—	*F105RR Roof Rail Air Bag - Right Rear*
F106D	Seat Side Air Bag - Driver	AK5	Within the driver seat back, towards the outside	—	*F106D Seat Side Air Bag - Driver*
F106P	Seat Side Air Bag - Passenger	AK5	Within the passenger seat back, towards the outside	—	*F106P Seat Side Air Bag - Passenger*
F107	Steering Wheel Air Bag	—	Attached to the center of the steering wheel	• *Instrument Panel Components (1 of 2)* • *Steering Column Components (1 of 2)*	*F107 Steering Wheel Air Bag*
F109D	Seat Belt Buckle Pretensioner - Driver	—	Part of the seat belt buckle	*Driver Seat Components*	*F109D Seat Belt Buckle Pretensioner - Driver*
F109P	Seat Belt Buckle Pretensioner - Passenger	AK5	Part of the seat belt buckle	*Passenger Seat Components*	*F109P Seat Belt Buckle Pretensioner - Passenger*
G7	Coolant Heater Fuel Pump	K08	Attached to the left inner frame rail, near the fuel pump assembly	• *Coolant Heater Components (K08)* • *Frame and Underbody Components (2 of 2)*	*G7 Coolant Heater Fuel Pump*
G12	Fuel Pump	LV1, L96, or LC8	Under the vehicle, internally attached to the middle of the fuel pump assembly	*Frame and Underbody Components (2 of 2)*	—
G12A	Fuel Pump - Primary	—	Under the vehicle, in the fuel tank, part of the fuel pump and level sensor assembly	—	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
G13	Generator	—	Attached to the right front of the engine	• *Left Front of the Engine Components (LWN)* • *Left Front Side of the Engine Components (L96 or LC8)*	• *G13 Generator X1 (L96/LC8)* • *G13 Generator X1 (LV1)* • *G13 Generator X1 (LWN)* • *G13 Generator X2 (L96/LC8+K68)* • *G13 Generator X2 (L96/LC8 +KG4/KW5)* • *G13 Generator X2 (LV1+K68)* • *G13 Generator X2 (LV1-K68)* • *G13 Generator X2 (LWN)*
G18	High Pressure Fuel Pump	LV1	In the engine compartment, at the top rear of the engine, between the cylinder heads	*Top of the Engine Components (LV1)*	*G18 High Pressure Fuel Pump*
G24	Windshield Washer Pump	—	Attached to the windshield washer fluid reservoir in the right front of the engine compartment	*Front of Engine Compartment Components (1 of 2)*	*G24 Windshield Washer Pump*
G33	Reductant Pump	LWN	Under the vehicle, above the reductant tank	—	—
K9	Body Control Module	—	Lower right side of the instrument panel behind the knee bolster	*Instrument Panel Components (2 of 2)*	• *K9 Body Control Module X1* • *K9 Body Control Module X2* • *K9 Body Control Module X3* • *K9 Body Control Module X4* • *K9 Body Control Module X5* • *K9 Body Control Module X6* • *K9 Body Control Module X7*
K10	Coolant Heater Control Module	K08	Internal to the coolant heater assembly	*Coolant Heater Components (K08)*	—
K17	Electronic Brake Control Module	—	Attached to the left frame rail, near the center of the vehicle	*Frame and Underbody Components (1 of 2)*	*K17 Electronic Brake Control Module*
K18	Compass Module	U80	In the front of the headliner	*Headliner Components*	*K18 Compass Module*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
K20	Engine Control Module	—	At the left front side of the engine compartment, near the underhood fuse block on the inner left front fender	• *Engine Compartment Components (1 of 2)* • *Engine Compartment Components (2 of 2)*	• *K20 Engine Control Module X1 (L96/LC8)* • *K20 Engine Control Module X1 (LV1)* • *K20 Engine Control Module X1 (LWN)* • *K20 Engine Control Module X2 (L96/LC8)* • *K20 Engine Control Module X2 (LV1)* • *K20 Engine Control Module X2 (LWN)* • *K20 Engine Control Module X3 (L96/LC8)* • *K20 Engine Control Module X3 (LV1)* • *K20 Engine Control Module X3 (LWN)*
K33A	HVAC Control Module - Auxiliary	—	In the front of the headliner	—	*K33A HVAC Control Module - Auxiliary*
K36	Inflatable Restraint Sensing and Diagnostic Module	—	Below the driver seat under the carpet on the floor board	*Front of the Passenger Compartment Components*	• *K36 Inflatable Restraint Sensing and Diagnostic Module X1* • *K36 Inflatable Restraint Sensing and Diagnostic Module X2*
K38	Chassis Control Module	—	Under the vehicle, attached to the left frame rail, appriximately midpoint of vehicle	—	*K38 Chassis Control Module*
K64	Content Theft Deterrent Control Module	—	In the steering column around the ignition key cylinder housing	*Steering Column Components (1 of 2)*	*K64 Content Theft Deterrent Control Module*
K71	Transmission Control Module	M5U	Internal to T12 Automatic Transmission Assembly	*Engine Compartment Components (1 of 2)*	• *K71 Transmission Control Module (LV1)* • *K71 Transmission Control Module (LWN)*
K73	Telematics Communication Interface Control Module	UE1	In the passenger compartment, mounted on a bracket under driver knee bolster panel	*Underside of Instrument Panel Components*	• *K73 Telematics Communication Interface Control Module X1* • *K73 Telematics Communication Interface Control Module X2*
K77	Remote Control Door Lock Receiver	ATG or UJM	Attached to the upper left side of the instrument panel carrier, above the instrument panel cluster (IPC)	*Instrument Panel Components (2 of 2)*	*K77 Remote Control Door Lock Receiver*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
K115	Reductant Control Module	LWN	Under the vehicle, mounted on the top of the reductant fluid tank	*Reductant Tank Components*	- *K115 Reductant Control Module X1* - *K115 Reductant Control Module X2*
K182	Parking Assist Control Module	UD7	In the passenger compartment, mounted within the instrument panel on the right side if the steering column	—	- *K182 Parking Assist Control Module X1* - *K182 Parking Assist Control Module X2*
M2A	Access Panel Unlatch Actuator - Left Front Side Front	PRP	Inside the left access panel area	—	*M2A Access Panel Unlatch Actuator - Left Front Side Front*
M2B	Access Panel Unlatch Actuator - Left Front Side Rear	PRP	Inside the left access panel area	—	*M2B Access Panel Unlatch Actuator - Left Front Side Rear*
M2C	Access Panel Unlatch Actuator - Left Rear Side Front	PRP	Inside the left access panel area	—	*M2C Access Panel Unlatch Actuator - Left Rear Side Front*
M2D	Access Panel Unlatch Actuator - Left Rear Side Rear	PRP	Inside the left access panel area	—	*M2D Access Panel Unlatch Actuator - Left Rear Side Rear*
M2E	Access Panel Unlatch Actuator - Right Side Front	PRP	Inside the right access panel area	—	*M2E Access Panel Unlatch Actuator - Right Side Front*
M2F	Access Panel Unlatch Actuator - Right Side Rear	PRP	Inside the right access panel area	—	*M2F Access Panel Unlatch Actuator - Right Side Rear*
M6	Air Temperature Door Actuator	—	Lower right side of the instrument panel, attached to the HVAC module	*HVAC Case Components*	*M6 Air Temperature Door Actuator*
M6B	Air Temperature Door Actuator - Auxiliary	C69	In the left rear of the passenger compartment, attached to the auxiliary HVAC module	*Left Rear Cargo Area Components (Passenger or Cargo)*	*M6B Air Temperature Door Actuator - Auxiliary*
M7	Transmission Shift Lock Control Solenoid Actuator	—	Attached to the right side of the steering column	*Steering Column Components (1 of 2)*	*M7 Transmission Shift Lock Control Solenoid Actuator (MYD)*
M8	Blower Motor	—	Right rear of the engine compartment, attached to the evaporator case	*Engine Compartment Components (1 of 2)*	*M8 Blower Motor*
M8B	Blower Motor - Auxiliary	C36 or C69	In the left rear of the passenger compartment, attached to the auxiliary HVAC module	*Left Rear Cargo Area Components (Passenger or Cargo)*	*M8B Blower Motor - Auxiliary*
M11	Coolant Heater Blower Motor	K08	Internal to the coolant heater assembly	*Coolant Heater Components (K08)*	—
M13	Door Latch Assembly - Rear Cargo	Passenger or Cargo	Attached to the right cargo door latch, in the right cargo door	*Rear Door Components (Passenger or Cargo)*	- *M13 Door Latch Assembly - Rear Cargo X1* - *M13 Door Latch Assembly - Rear Cargo X2*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
M14RR	Door Lock Actuator - Right Rear	AU3	Attached to the right rear door latch, in the right rear door	• *Right Side Hinged Door Components (E24)* • *Right Sliding Door Components (YA2)*	• *M14RR Door Lock Actuator - Right Rear (E24)* • *M14RR Door Lock Actuator - Right Rear (YA2)*
M37B	Mode Door Actuator - Auxiliary	C69	In the left rear of the passenger compartment, attached to the auxiliary HVAC module	*Left Rear Cargo Area Components (Passenger or Cargo)*	*M37B Mode Door Actuator - Auxiliary*
M49D	Seat Motor Assembly - Driver	AG1	Below the left front seat, attached to the seat frame	*Driver Seat Components*	*M49D Seat Motor Assembly - Driver (AG1)*
M49P	Seat Motor Assembly - Passenger	AG2	Below the right front seat, attached to the seat frame	*Passenger Seat Components*	*M49P Seat Motor Assembly - Passenger (AG2)*
M64	Starter Motor	—	Attached to the lower right rear of the engine	• *Left Front of the Engine Components (LWN)* • *Right Front Side of the Engine Components (L96 or LC8)* • *Right Front Side of the Engine Components (LV1)*	• *M64 Starter Motor X1 (L96/ LC8+TP2)* • *M64 Starter Motor X1 (L96/LC8-TP2)* • *M64 Starter Motor X1 (LV1)* • *M64 Starter Motor X1 (LWN)* • *M64 Starter Motor X2 (L96/LC8)* • *M64 Starter Motor X2 (LV1)* • *M64 Starter Motor X2 (LWN)*
M74D	Window Motor - Driver	A31	Attached to the interior of the left front door	*Driver Door Components*	*M74D Window Motor - Driver*
M74P	Window Motor - Passenger	A31	Attached to the interior of the right front door	*Front Passenger Door Components*	*M74P Window Motor - Passenger*
M75	Windshield Wiper Motor	—	In the left side of the cowl, near the engine compartment	*Front of Engine Compartment Components (1 of 2)*	*M75 Windshield Wiper Motor*
M103	Turbocharger Vane Position Actuator	LWN	In the engine compartment, attached to the turbocharger	*Right Rear of Engine Components (LWN)*	*M103 Turbocharger Vane Position Actuator*
P3	Backup Alarm	8S3	In the rear of the vehicle on the frame	—	*P3 Backup Alarm*
P13	Horn Assembly	—	In the left front engine compartment behind the left headlamp	• *Engine Compartment Components (2 of 2)* • *Front of Engine Compartment Components (1 of 2)*	*P13 Horn Assembly*
P16	Instrument Cluster	—	Attached to the left side of the instrument panel	*Instrument Panel Components (1 of 2)*	*P16 Instrument Cluster*
P19AG	Speaker - Left Front Door	—	Attached to the left front door	*Driver Door Components*	*P19AG Speaker - Left Front Door*
P19AH	Speaker - Right Front Door	—	Attached to the right front door	*Front Passenger Door Components*	*P19AH Speaker - Right Front Door*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
P19F	Speaker - Left Rear Cargo Door	US8	Attached to the left cargo door	*Rear Door Components (Passenger or Cargo)*	*P19F Speaker - Left Rear Cargo Door*
P19LR	Speaker - Left Rear Roof	Cargo or Passenger	In the left rear headliner of the vehicle	*Rear Door Components (Passenger or Cargo)*	*P19LR Speaker - Left Rear Roof*
P19RR	Speaker - Right Rear Roof	Cargo or Passenger	In the right rear upper headliner of the vehicle	*Rear Door Components (Passenger or Cargo)*	*P19RR Speaker - Right Rear Roof*
P19T	Speaker - Right Rear Cargo Door	US8	Attached to the right cargo door	*Rear Door Components (Passenger or Cargo)*	*P19T Speaker - Right Rear Cargo Door*
P34D	Side Object Detection Indicator - Driver	UFT	Internal to the outside rearview mirror - driver	—	—
P34P	Side Object Detection Indicator - Passenger	UFT	Internal to the outside rearview mirror - passenger	—	—
P43	Collision Alert Indicators	UFL	Within the instrument cluster	—	*P43 Collision Alert Indicators*
Q1A	1-2 Shift Solenoid Valve	—	Internal T12 Automatic Transmission Assembly	—	—
Q1B	2-3 Shift Solenoid Valve	—	Internal T12 Automatic Transmission Assembly	—	—
Q2	A/C Compressor Clutch	C60	On the front of the A/C compressor lower right front of engine	• *Front of Engine Compartment Components (1 of 2)* • *Left Front of the Engine Components (LWN)*	• *Q2 A/C Compressor Clutch (L96/LC8)* • *Q2 A/C Compressor Clutch (LV1)* • *Q2 A/C Compressor Clutch (LWN)*
Q6	Camshaft Position Actuator Solenoid Valve	LV1, L96, or LC8	Front of the engine behind the center of the water pump	• *Left Front Side of the Engine Components (L96 or LC8)* • *Left Front Side of the Engine Components (LV1)*	• *Q6 Camshaft Position Actuator Solenoid Valve (L96/LC8)* • *Q6 Camshaft Position Actuator Solenoid Valve*
Q8	Control Solenoid Valve Assembly	—	Internal to T12 Automatic Transmission Assembly	*Automatic Transmission Internal Electrical Components*	—
Q12	Evaporative Emission Purge Solenoid Valve	LV1, L96, or LC8	On the top of the engine, rear of the throttle body	• *Left Front Side of the Engine Components (L96 or LC8)* • *Top of the Engine Components (L96 or LC8)* • *Upper Left Side of the Engine Components (LV1)*	• *Q12 Evaporative Emission Purge Solenoid Valve (L96/LC8)* • *Q12 Evaporative Emission Purge Solenoid Valve (LV1)*
Q13	Evaporative Emission Vent Solenoid Valve	LV1, L96, or LC8	Attached to the side of the EVAP canister, front of the fuel tank	—	*Q13 Evaporative Emission Vent Solenoid Valve*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
Q14	Exhaust Gas Recirculation Valve	LWN	In the engine compartment, on the top right of the engine	*Left Front of the Engine Components (LWN)*	*Q14 Exhaust Gas Recirculation Valve*
Q17A	Fuel Injector 1	—	On the left side of the intake manifold, at the #1 cylinder intake port	• *Right Rear of Engine Components (LWN)* • *Top of the Engine Components (LV1)*	• *Q17A Fuel Injector 1 (L96/LC8)* • *Q17A Fuel Injector 1 (LV1)* • *Q17A Fuel Injector 1 (LWN)*
Q17B	Fuel Injector 2	—	On the right side of the intake manifold, at the #2 cylinder intake port	• *Right Rear of Engine Components (LWN)* • *Top of the Engine Components (LV1)* • *Upper Right Side of the Engine Components (L96 or LC8)*	• *Q17B Fuel Injector 2 (L96/LC8)* • *Q17B Fuel Injector 2 (LV1)* • *Q17B Fuel Injector 2 (LWN)*
Q17C	Fuel Injector 3	—	On the left side of the intake manifold, at the #3 cylinder intake port	• *Right Rear of Engine Components (LWN)* • *Top of the Engine Components (LV1)*	• *Q17C Fuel Injector 3 (L96/LC8)* • *Q17C Fuel Injector 3 (LV1)* • *Q17C Fuel Injector 3 (LWN)*
Q17D	Fuel Injector 4	—	On the right side of the intake manifold, at the #4 cylinder intake port	• *Right Rear of Engine Components (LWN)* • *Top of the Engine Components (LV1)* • *Upper Right Side of the Engine Components (L96 or LC8)*	• *Q17D Fuel Injector 4 (L96/LC8)* • *Q17D Fuel Injector 4 (LV1)* • *Q17D Fuel Injector 4 (LWN)*
Q17E	Fuel Injector 5	—	On the left side of the intake manifold, at the #5 cylinder intake port	*Top of the Engine Components (LV1)*	• *Q17E Fuel Injector 5 (L96/LC8)* • *Q17E Fuel Injector 5 (LV1)*
Q17F	Fuel Injector 6	—	On the right side of the intake manifold, at the #6 cylinder intake port	• *Top of the Engine Components (LV1)* • *Upper Right Side of the Engine Components (L96 or LC8)*	• *Q17F Fuel Injector 6 (L96/LC8)* • *Q17F Fuel Injector 6 (LV1)*
Q17G	Fuel Injector 7	L96, or LC8	On the left side of the intake manifold, at the #7 cylinder intake port	—	*Q17G Fuel Injector 7*
Q17H	Fuel Injector 8	L96, or LC8	On the right side of the intake manifold, at the #8 cylinder intake port	*Upper Right Side of the Engine Components (L96 or LC8)*	*Q17H Fuel Injector 8*
Q18A	Fuel Pressure Regulator 1	LWN	In the engine compartment, mounted on top of the fuel injection pump	*Left Front of the Engine Components (LWN)*	*Q18A Fuel Pressure Regulator 1*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
Q18B	Fuel Pressure Regulator 2	LWN	In the engine compartment, mounted to the front of the left fuel rail	*Left Front of the Engine Components (LWN)*	*Q18B Fuel Pressure Regulator 2*
Q20	Intake Air Flow Valve	LWN	Attached to the center front of the intake manifold	—	*Q20 Intake Air Flow Valve*
Q27A	Pressure Control Solenoid Valve 1	—	Internal to T12 Automatic Transmission Assembly	—	—
Q27B	Pressure Control Solenoid Valve 2	—	Internal to T12 Automatic Transmission Assembly	—	—
Q27C	Pressure Control Solenoid Valve 3	—	Internal to T12 Automatic Transmission Assembly	—	—
Q27D	Pressure Control Solenoid Valve 4	—	Internal to T12 Automatic Transmission Assembly	—	—
Q27E	Pressure Control Solenoid Valve 5	—	Internal to T12 Automatic Transmission Assembly	—	—
Q38	Throttle Body	LV1, L96, or LC8	Attached to the center front of the intake manifold	• *Left Front of the Engine Components (LWN)* • *Left Front Side of the Engine Components (L96 or LC8)* • *Right Front Side of the Engine Components (L96 or LC8)* • *Top of the Engine Components (L96 or LC8)*	*Q38 Throttle Body*
Q39A	Torque Converter Clutch Pressure Control Solenoid Valve	—	Internal to T12 Automatic Transmission Assembly	—	—
Q44	Engine Oil Pressure Control Solenoid Valve	LV1	In the engine compartment, at the front of the engine, behind the front cover	—	*Q44 Engine Oil Pressure Control Solenoid Valve (LV1)*
Q47	Exhaust Gas Recirculation Cooler Bypass Solenoid Valve	LWN	In the engine compartment, on the left side of the engine attached to the EGR valve	*Right Front of Engine Components (LWN)*	*Q47 Exhaust Gas Recirculation Cooler Bypass Solenoid Valve*
Q61	Reductant Injector	LWN	Under the vehicle, attached to the exhaust pipe, near the rear of the catalytic converter	—	*Q61 Reductant Injector*
Q67	Exhaust After-treatment Fuel Injector	LWN	In the engine compartment, on the right rear side of the engine	—	*Q67 Exhaust After-treatment Fuel Injector*
Q77A	Transmission Control Solenoid Valve 1	M5U	Under the vehicle, internal to the Transmision Assembly	—	*Q77A Transmission Control Solenoid Valve 1 (M5U)*
Q77B	Transmission Control Solenoid Valve 2	M5U	Under the vehicle, internal to the Transmision Assembly	—	*Q77B Transmission Control Solenoid Valve 2 (M5U)*
Q77C	Transmission Control Solenoid Valve 3	M5U	Under the vehicle, internal to the Transmision Assembly	—	*Q77C Transmission Control Solenoid Valve 3 (M5U)*
Q77D	Transmission Control Solenoid Valve 4	M5U	Under the vehicle, internal to the Transmision Assembly	—	*Q77D Transmission Control Solenoid Valve 4 (M5U)*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
Q77E	Transmission Control Solenoid Valve 5	M5U	Under the vehicle, internal to the Transmision Assembly	—	*Q77E Transmission Control Solenoid Valve 5 (M5U)*
Q77F	Transmission Control Solenoid Valve 6	M5U	Under the vehicle, internal to the Transmision Assembly	—	*Q77F Transmission Control Solenoid Valve 6 (M5U)*
Q77G	Transmission Control Solenoid Valve 7	M5U	Under the vehicle, internal to the Transmision Assembly	—	*Q77G Transmission Control Solenoid Valve 7 (M5U)*
Q77H	Transmission Control Solenoid Valve 8	M5U	Under the vehicle, internal to the Transmision Assembly	—	*Q77H Transmission Control Solenoid Valve 8 (M5U)*
Q77J	Transmission Control Solenoid Valve 9	M5U	Under the vehicle, internal to the Transmision Assembly	—	*Q77J Transmission Control Solenoid Valve 9 (M5U)*
Q85	Cooling Fan Clutch	LWN	In the engine compartment, attached to the cooling fan	• *Front of Engine Compartment Components (1 of 2)* • *Left Side of Engine Components (LWN)*	*Q85 Cooling Fan Clutch (LWN)*
R3	Blower Motor Resistor	—	Right rear of the engine compartment, attached to the evaporator case	*Engine Compartment Components (1 of 2)*	*R3 Blower Motor Resistor*
R3B	Blower Motor Resistor - Auxiliary	C36 or C69	In the left rear of the passenger compartment, attached to the auxiliary HVAC module	*Left Rear Cargo Area Components (Passenger or Cargo)*	*R3B Blower Motor Resistor - Auxiliary*
R6A	Terminating Resistor - High Speed Bus	—	In the engine compartment	—	*R6A Terminating Resistor - High Speed Bus*
R10	Cooling Fan Resistor	LWN	In the engine compartment	—	*R10 Cooling Fan Resistor*
S2	Transmission Manual Shift Switch	MYD	Mounted on the shift lever, extending from the right side of the steering column	—	*S2 Transmission Manual Shift Switch (MYD)*
S13A	Door Lock Switch - Rear Cargo	Passenger or Cargo with AU3	Attached to the right cargo door accessory mount plate	*Rear Door Components (Passenger or Cargo)*	*S13A Door Lock Switch - Rear Cargo*
S13D	Door Lock Switch - Driver	AU3	Attached to the left front door accessory mount plate	*Driver Door Components*	*S13D Door Lock Switch - Driver*
S13P	Door Lock Switch - Passenger	AU3	Attached to the right front door accessory mount plate	*Front Passenger Door Components*	*S13P Door Lock Switch - Passenger*
S16	Driver Information Center Switch	—	On the dash, just to the left of P16 Instrument Cluster	*Instrument Panel Components (1 of 2)*	*S16 Driver Information Center Switch*
S30	Headlamp Switch	—	At the left side of the instrument panel	*Instrument Panel Components (1 of 2)*	*S30 Headlamp Switch*
S33	Horn Switch	—	Inside the upper steering column, behind the inflatable restraint steering wheel module	*Steering Column Components (1 of 2)*	*S33 Horn Switch*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
S34	HVAC Controls Switch Assembly	—	In the center of the instrument panel	*Instrument Panel Components (1 of 2)*	• *S34 HVAC Controls Switch Assembly X1* • *S34 HVAC Controls Switch Assembly X2* • *S34 HVAC Controls Switch Assembly X3* • *S34 HVAC Controls Switch Assembly X4*
S34F	HVAC Controls Switch Assembly - Auxiliary Front	C36 or C69	On the front of the overhead console	*Headliner Components*	• *S34F HVAC Controls Switch Assembly - Auxiliary Front (REAR HVAC CONTROLS)* • *S34F HVAC Controls Switch Assembly - Auxiliary Front (-REAR HVAC CONTROLS)*
S34R	HVAC Controls Switch Assembly - Auxiliary Rear	C36 or C69 with Rear HVAC Controls	In the headliner, near the center of the vehicle	*Headliner Components*	*S34R HVAC Controls Switch Assembly - Auxiliary Rear*
S39	Ignition Switch	—	On the right side of the steering column	*Steering Column Components (1 of 2)*	*S39 Ignition Switch*
S40	Passenger Air Bag Disable Switch	C99	In the center of the instrument panel	*Instrument Panel Components (1 of 2)*	*S40 Passenger Air Bag Disable Switch*
S51	Telematics Button Assembly	UE1	In the center of the instrument panel, just below the radio	—	*S51 Telematics Button Assembly*
S52	Outside Rearview Mirror Switch	DEB or DE5	Attached to the left front door accessory mount plate	*Driver Door Components*	*S52 Outside Rearview Mirror Switch*
S64D	Seat Adjuster Switch - Driver	AG1	Attached to the front panel of the driver seat	*Driver Seat Components*	*S64D Seat Adjuster Switch - Driver (AG1)*
S64P	Seat Adjuster Switch - Passenger	AG2	Attached to the front panel of the front passenger seat	*Passenger Seat Components*	*S64P Seat Adjuster Switch - Passenger (AG2)*
S70L	Steering Wheel Controls Switch - Left	K34	On the left steering wheel spoke	*Instrument Panel Components (1 of 2)*	*S70L Steering Wheel Controls Switch - Left (K34)*
S70R	Steering Wheel Controls Switch - Right	W1Y	On the right steering wheel spoke	*Instrument Panel Components (1 of 2)*	*S70R Steering Wheel Controls Switch - Right (W1Y)*
S74	Tow/Haul Mode Switch	—	In the center of the instrument panel	*Instrument Panel Components (1 of 2)*	*S74 Tow/Haul Mode Switch*
S75	Traction Control Switch	—	In the center of the instrument panel	*Instrument Panel Components (1 of 2)*	*S75 Traction Control Switch*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
S78	Turn Signal/Multifunction Switch	—	On the left side of the steering column	• *Instrument Panel Components (1 of 2)* • *Steering Column Components (1 of 2)*	• *S78 Turn Signal/ Multifunction Switch X1* • *S78 Turn Signal/ Multifunction Switch X2* • *S78 Turn Signal/ Multifunction Switch X3*
S79D	Window Switch - Driver	A31	Attached to the left front door accessory mount plate	*Driver Door Components*	*S79D Window Switch - Driver*
S79P	Window Switch - Passenger	A31	Attached to the right front door accessory mount plate	*Front Passenger Door Components*	*S79P Window Switch - Passenger*
S85	Auxiliary Blower Motor Switch	C36 or C69	In the center of the instrument panel	*Instrument Panel Components (1 of 2)*	*S85 Auxiliary Blower Motor Switch*
S155	Lane Departure Warning Switch	—	Near the center of the instrument panel, below the radio	—	*S155 Lane Departure Warning Switch*
T1	Accessory DC/AC Power Inverter Module	KI4	Attached to the Instrument Panel Harness	—	*T1 Accessory DC/AC Power Inverter Module*
T4G	Cellular Phone, Navigation, and Digital Radio Antenna	U2K, UBS, or UI8	Mounted towards the left front of the roof	—	—
T4M	Radio Antenna	—	Mounted on top of the right front fender, adjacent to the hood	*Right Rear of the Engine Compartment Components*	*T4M Radio Antenna*
T4S	Wireless Communication Antenna - Bluetooth	UE1	Internal to K73 Telematics Communication Interface Control Module	—	—
T8A	Ignition Coil 1	—	On the left rocker cover center at cylinder 1	*Upper Left Side of the Engine Components (LV1)*	• *T8A Ignition Coil 1 (L96/LC8)* • *T8A Ignition Coil 1 (LV1)*
T8B	Ignition Coil 2	—	On the right rocker cover center at cylinder 2	• *Right Front Side of the Engine Components (L96 or LC8)* • *Upper Right Side of the Engine Components (L96 or LC8)*	• *T8B Ignition Coil 2 (L96/LC8)* • *T8B Ignition Coil 2 (LV1)*
T8C	Ignition Coil 3	—	On the left rocker cover center at cylinder 3	*Upper Left Side of the Engine Components (LV1)*	• *T8C Ignition Coil 3 (L96/LC8)* • *T8C Ignition Coil 3 (LV1)*
T8D	Ignition Coil 4	—	On the right rocker cover center at cylinder 4	• *Right Front Side of the Engine Components (L96 or LC8)* • *Upper Right Side of the Engine Components (L96 or LC8)*	• *T8D Ignition Coil 4 (L96/LC8)* • *T8D Ignition Coil 4 (LV1)*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
T8E	Ignition Coil 5	—	On the left rocker cover center at cylinder 5	*Upper Left Side of the Engine Components (LV1)*	• *T8E Ignition Coil 5 (L96/LC8)* • *T8E Ignition Coil 5 (LV1)*
T8F	Ignition Coil 6	—	On the right rocker cover center at cylinder 6	• *Right Front Side of the Engine Components (L96 or LC8)* • *Upper Right Side of the Engine Components (L96 or LC8)*	• *T8F Ignition Coil 6 (L96/LC8)* • *T8F Ignition Coil 6 (LV1)*
T8G	Ignition Coil 7	L96, or LC8	On the left rocker cover rear at cylinder 7	—	*T8G Ignition Coil 7*
T8H	Ignition Coil 8	L96, or LC8	On the right rocker cover rear at cylinder 8	• *Right Front Side of the Engine Components (L96 or LC8)* • *Upper Right Side of the Engine Components (L96 or LC8)*	*T8H Ignition Coil 8*
T12	Automatic Transmission Assembly	—	Under the vehicle attached to the rear of the engine	—	*T12 Automatic Transmission Assembly*
W8	Blunt Cut - Trailer Provision	—	Behind the instrument panel, near the steering column	—	—
W12	Blunt Cut - Emergency Vehicle Provision	—	Near the instrument panel	—	—
W22	Blunt Cut - Rear Speaker Provision	—	Near the instrument panel	—	—
W25	Blunt Cut - Configurable Provision	—	Near the instrument panel	—	—
X50A	Fuse Block - Underhood	—	In the engine compartment, attached to the left front fender	• *Engine Compartment Components (1 of 2)* • *Engine Compartment Components (2 of 2)* • *Engine Harness Routing - Engine Compartment (LV1)*	*Electrical Center Identification Views on page 6-127*
X50B	Fuse Block - Underhood Auxiliary	—	In the engine compartment	—	*Electrical Center Identification Views on page 6-127*
X52A	Fuse Block - Passenger Compartment	—	Below the driver seat	*Body Harness Routing - Left Front of Passenger Compartment*	*Electrical Center Identification Views on page 6-127*
X53A	Fuse Block - Rear Body	PRP	Within the cargo area	—	*Electrical Center Identification Views on page 6-127*
X54D	Fuse Block - Fuel Heater	LWN	Within the engine compartment	—	*Electrical Center Identification Views on page 6-127*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
X55AF	Fuse Holder - Engine Control Module	LWN	Within the engine compartment	—	*Electrical Center Identification Views on page 6-127*
X55AS	Fuse Holder - Rear Body Fuse Block	LWN	Within the engine compartment	—	*Electrical Center Identification Views on page 6-127*
X60A	Junction Block - Underhood	LWN or TP2	In the engine compartment, in-between M64 Starter Motor and X50A Fuse Block - Underhood	—	*Electrical Center Identification Views on page 6-127*
X80A	Accessory Power Receptacle - Center Console 1	Without DT4	In the center of the instrument panel	*Instrument Panel Components (1 of 2)*	*X80A Accessory Power Receptacle - Center Console 1 (-DT4)*
X80B	Accessory Power Receptacle - Center Console 2	—	In the right center of the instrument panel	*Instrument Panel Components (1 of 2)*	*X80B Accessory Power Receptacle - Center Console 2*
X81	Accessory Power Receptacle - 110V AC	KI4	Within the passenger compartment	—	• *X81 Accessory Power Receptacle - 110V AC X1* • *X81 Accessory Power Receptacle - 110V AC X2*
X84	Data Link Connector	—	Left lower side of the instrument panel, near the park brake pedal assembly	*Instrument Panel Components (1 of 2)*	*X84 Data Link Connector*
X85	Steering Wheel Air Bag Coil	—	Inside the upper steering column	—	• *X85 Steering Wheel Air Bag Coil X1* • *X85 Steering Wheel Air Bag Coil X2*
X87RB	Sliding Door Jamb Contact Plate - Right Body	AU3 and E24 or YA2	Attached to the right B-pillar	• *Right Side Hinged Door Components (E24)* • *Right Sliding Door Components (YA2)*	• *X87RB Sliding Door Jamb Contact Plate - Right Body (AU3)* • *X87RB Sliding Door Jamb Contact Plate - Right Body (CARGO)* • *X87RB Sliding Door Jamb Contact Plate - Right Body (CUTAWAY)* • *X87RB Sliding Door Jamb Contact Plate - Right Body (PASSENGER)*
X88	Trailer Connector	UY7	Below the rear bumper, near the center	—	• *X88 Trailer Connector (LWN)* • *X88 Trailer Connector (-LWN)* • *X88 Trailer Connector (NE7)* • *X88 Trailer Connector (-NE7)*
X92	USB Receptacle	USR	Slightly below and to the right of A11 Radio	—	*X92 USB Receptacle*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
X100	Instrument Panel Harness to Engine Harness	—	Left rear of the engine compartment near the underhood fuse block and the horn	• *Engine Harness Routing - Engine Compartment* • *Engine Harness Routing - Engine Compartment (LV1)* • *Engine Harness Routing - Front (L96 or LC8)*	*X100 Instrument Panel Harness to Engine Harness*
X101	Engine Harness to Chassis Harness	LV1, L96, or LC8	Left rear of the engine compartment behind the underhood fuse block	• *Chassis Harness Routing (L96 or LC8)* • *Engine Harness Routing - Engine Compartment (LV1)* • *Engine Harness Routing - Front (L96 or LC8)*	*X101 Engine Harness to Chassis Harness*
X104	Instrument Panel Harness to Front Impact Sensor Jumper Harness	—	Instrument panel harness to the inflatable restraint front end sensor jumper harness, bottom left side of the radiator support	*Engine Harness Routing - Engine Compartment*	*X104 Instrument Panel Harness to Front Impact Sensor Jumper Harness*
X108	Positive Battery Cable Harness to Engine Harness	LWN	Battery cable harness to the engine harness, near the front of the engine compartment	—	*X108 Positive Battery Cable Harness to Engine Harness*
X109	Engine Harness to Underhood Lamp Harness	TR9	Engine harness to the underhood lamp jumper harness, left rear of the engine compartment	• *Engine Harness Routing - Engine Compartment (LV1)* • *Engine Harness Routing - Front (L96 or LC8)*	*X109 Engine Harness to Underhood Lamp Harness*
X111	Engine Harness to Glow Plug Jumper Harness	LWN	In the engine compartment, on the left side of the engine toward the top	—	*X111 Engine Harness to Glow Plug Jumper Harness*
X112	Engine Harness to Fuel Rail Jumper Harness	LWN	Fuel rail jumper harness to the engine harness, in the engine compartment, near the upper rear corner of the left valve cover	—	*X112 Engine Harness to Fuel Rail Jumper Harness*
X116	Engine Harness to Chassis Harness	LWN	In the engine compartment	—	*X116 Engine Harness to Chassis Harness*
X126	Engine Harness to Ignition Coil Harness	L96, or LC8	Engine harness to the left ignition coils jumper harness, top center of the left valve cover	• *Engine Harness Routing - Front (L96 or LC8)* • *Engine Harness Routing - Left Rear of Engine (L96 or LC8)*	*X126 Engine Harness to Ignition Coil Harness*
X127	Engine Harness to Ignition Coil Harness	L96, or LC8	Engine harness to the right ignition coils jumper harness, top center of the right valve cover	*Upper Right Side of the Engine Components (L96 or LC8)*	*X127 Engine Harness to Ignition Coil Harness*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
X130	Engine Harness to Camshaft Position Sensor Jumper Harness	LV1	In the engine compartment, on the left rear side of engine block	• *Engine Harness Routing - Engine Compartment (LV1)* • *Engine Harness Routing - Front (LV1)*	*X130 Engine Harness to Camshaft Position Sensor Jumper Harness*
X135	Camshaft Position Sensor Jumper Harness to Oil Control Solenoid Valve Jumper Harness	LV1	In the engine compartment, on the left rear side of engine block	*Engine Harness Routing - Front (LV1)*	*X135 Camshaft Position Sensor Jumper Harness to Oil Control Solenoid Valve Jumper Harness*
X141	Instrument Panel Harness to Brake Fluid Level Jumper Harness	UJ1	Instrument panel harness to the brake fluid alarm switch jumper harness, left rear of the engine compartment near the cowl	• *Brake Booster Fluid Alarm Switches (UJ1)* • *Engine Harness Routing - Engine Compartment*	*X141 Instrument Panel Harness to Brake Fluid Level Jumper Harness*
X142	Engine Harness to Cooling Fan Jumper Harness	LWN	Engine chassis harness to the fan jumper harness, near the front of the engine	*Front of Engine Compartment Components (2 of 2)*	*X142 Engine Harness to Cooling Fan Jumper Harness*
X150	Instrument Panel Harness to Forward Lamp Harness	—	Instrument panel harness to the forward lamp harness, near the upper radiator hose at the radiator entry point	• *Engine Harness Routing - Engine Compartment* • *Forward Lamp Harness Routing*	*X150 Instrument Panel Harness to Forward Lamp Harness*
X160	Engine Harness to Fuel Injector Jumper Harness	LV1	In the engine compartment, rear of the engine near the top center	• *Engine Harness Routing - Engine Compartment (LV1)* • *Fuel Injector Harness Routing (LV1)*	*X160 Engine Harness to Fuel Injector Jumper Harness*
X161	Engine Harness to Fuel Injector Jumper Harness	LV1	In the engine compartment, rear of the engine near the top right	• *Engine Harness Routing - Engine Compartment (LV1)* • *Fuel Injector Harness Routing (LV1)*	*X161 Engine Harness to Fuel Injector Jumper Harness*
X175	Engine Harness to Transmission Jumper Harness	M5U	Engine harness to the transmission jumper harness	—	• *X175 Engine Harness to Transmission Jumper Harness (LV1)* • *X175 Engine Harness to Transmission Jumper Harness (LWN)*
X176	Transmission Case Harness to Transmission Control Harness	M5U	Internal to the transmission	—	*X176 Transmission Case Harness to Transmission Control Harness (M5U)*
X177	Engine Harness to Camshaft Position Sensor Jumper Harness	L96, or LC8	Engine harness to the camshaft harness, left front of the engine near the crank pulley	*Engine Harness Routing - Front (L96 or LC8)*	*X177 Engine Harness to Camshaft Position Sensor Jumper Harness*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
X178	Transmission Case Harness to Speed Sensor Assembly Harness	M5U	Transmission harness to the transmission speed sensor harness	—	*X178 Transmission Case Harness to Speed Sensor Assembly Harness (M5U)*
X185	Instrument Panel Harness to Chassis Harness	—	In the engine compartment, near the X50A fuse block - underhood	—	*X185 Instrument Panel Harness to Chassis Harness*
X190	Accessory Harness to Accessory Power Fuse Block Rear Extension Harness	—	In the engine compartment	—	*X190 Accessory Harness to Accessory Power Fuse Block Rear Extension Harness*
X200	Steering Column Harness to Instrument Panel Harness	—	Steering column harness to the instrument panel harness, at the base of the steering column	• *Instrument Panel Harness Routing - Dash Area (1 of 2)* • *Steering Column Harness Routing*	*X200 Steering Column Harness to Instrument Panel Harness*
X202	Instrument Panel Harness to Engine Harness	—	Instrument panel harness to engine harness, about 8.8 inches (225 mm) from I/P underhood break out after pass through grommet	• *Engine Harness Routing - Engine Compartment (LV1)* • *Engine Harness Routing - Front (L96 or LC8)*	*X202 Instrument Panel Harness to Engine Harness*
X204	Body Harness to Headliner Harness	—	Body harness to headliner harness,	• *Body Harness Routing - Right Front of Passenger Compartment (1 of 2)* • *Body Harness Routing - Right Front of Passenger Compartment (2 of 2)*	*X204 Body Harness to Headliner Harness*
X205	Front Headliner Harness to Body Harness	—	Front headliner harness to the body harness, behind the A-pillar	• *Body Harness Routing - Right Front of Passenger Compartment (1 of 2)* • *Body Harness Routing - Right Front of Passenger Compartment (2 of 2)* • *Body Harness Routing - Roof Area*	*X205 Front Headliner Harness to Body Harness*
X206	Instrument Panel Harness to Instrument Panel Harness	—	Instrument Panel Harness to Instrument Panel Harness, left side of the instrument panel near the headlamp switch	—	*X206 Instrument Panel Harness to Instrument Panel Harness*
X220	Instrument Panel Harness to Park Brake Jumper Harness	—	Instrument panel harness to the parking brake jumper harness, left side of the instrument panel, center of the parking brake pedal assembly	—	*X220 Instrument Panel Harness to Park Brake Jumper Harness*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
X222	Upfitter Provision Harness to Instrument Panel Harness	YF2 or YF7	Upfitter harness to the instrument panel harness, left side of the instrument panel near the parking brake lever assembly	*Instrument Panel Harness Routing - Dash Area (1 of 2)*	*X222 Upfitter Provision Harness to Instrument Panel Harness*
X225	Accelerator Pedal Position Sensor Harness to Instrument Panel Harness	—	Accelerator Pedal Position (APP) Jumper Harness to Instrument Panel Harness, located between Accelerator Pedal Position (APP) sensor and Instrument Panel Harness	—	*X225 Accelerator Pedal Position Sensor Harness to Instrument Panel Harness*
X276	Steering Wheel Harness to Instrument Panel Harness	—	Steering wheel harness to the instrument panel harness, in the back of the left instrument panel knee bolster above X200	*Instrument Panel Harness Routing - Dash Area (1 of 2)*	*X276 Steering Wheel Harness to Instrument Panel Harness*
X289	Rear Body Harness to Instrument Panel Harness	PRP	Inside the vehicle, towards the left front	—	*X289 Rear Body Harness to Instrument Panel Harness*
X290	Instrument Panel Harness to Rear Body Harness	PRP	Inside the vehicle, towards the left front	—	*X290 Instrument Panel Harness to Rear Body Harness*
X291	Accessory Power Fuse Block Rear Extension Harness to Accessory Power Fuse Block Rear Extension Harness	—	In the engine compartment	—	*X291 Accessory Power Fuse Block Rear Extension Harness to Accessory Power Fuse Block Rear Extension Harness*
X306	Body Harness to Passenger Seat Harness	—	Body harness to the front passenger seat harness, right side of the passenger compartment below the passenger seat	• *Body Harness Routing - Right Front of Passenger Compartment (1 of 2)* • *Body Harness Routing - Right Front of Passenger Compartment (2 of 2)* • *Driver Seat Harness Routing and Front Passenger Seat Harness Routing* • *Passenger Seat Components*	*X306 Body Harness to Passenger Seat Harness*
X307	Body Harness to Driver Seat Harness	—	Body harness to the driver seat harness, left side of the passenger compartment below the driver seat	• *Body Harness Routing - Left Front of Passenger Compartment* • *Driver Seat Components* • *Driver Seat Harness Routing and Front Passenger Seat Harness Routing*	*X307 Body Harness to Driver Seat Harness*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
X318	Instrument Panel Harness to Body Harness	—	Instrument panel harness to the body harness, behind the left kick panel	• *Body Harness Routing - Left Front of Passenger Compartment* • *Instrument Panel Harness Routing - Dash Area (1 of 2)*	*X318 Instrument Panel Harness to Body Harness*
X319	Auxiliary Heater Front Harness to Body Harness	ENC, C69, or C36	Rear heater switch harness to the body harness, behind the left kick panel	*Body Harness Routing - Left Front of Passenger Compartment*	*X319 Auxiliary Heater Front Harness to Body Harness*
X320	Upfitter Provision Harness to Body Harness	YF2 or YF7	Upfitter harness to the body harness, left side of the passenger compartment lower left C-pillar	—	*X320 Upfitter Provision Harness to Body Harness*
X321	Upfitter Provision Harness to Body Harness	YF2 or YF7	Upfitter harness to the body harness, left side of the passenger compartment center of the left C-pillar	—	*X321 Upfitter Provision Harness to Body Harness*
X323	Air Bag Jumper Harness to Body Harness	ASF	At the base of the left C-pillar	*Body Harness Routing - Left Front of Passenger Compartment*	*X323 Air Bag Jumper Harness to Body Harness*
X324	Air Bag Jumper Harness to Body Harness	ASF	At the base of the right C-pillar	*Body Harness Routing - Right C-Pillar*	*X324 Air Bag Jumper Harness to Body Harness*
X328	Body Harness to Upfitter Jumper Harness	WRF	Near the instrument panel	—	*X328 Body Harness to Upfitter Jumper Harness*
X329	Instrument Panel Harness to Body Harness	UVC	Instrument panel harness to the body harness, in the passenger compartment under the driver seat	*Body Harness Routing - Left Front of Passenger Compartment*	*X329 Instrument Panel Harness to Body Harness*
X330	Instrument Panel Harness to Body Harness	—	Instrument panel harness to the body harness, under the driver seat	• *Body Harness Routing - Left Front of Passenger Compartment* • *Instrument Panel Harness Routing - Dash Area (1 of 2)*	*X330 Body Harness to Body Harness*
X331	Instrument Panel Harness to Body Harness	—	Instrument panel harness to the body harness, under the driver seat	• *Body Harness Routing - Left Front of Passenger Compartment* • *Instrument Panel Harness Routing - Dash Area (1 of 2)*	*X331 Instrument Panel Harness to Body Harness*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
X400	Rear Cargo Door Harness to Body Harness	Passenger or Cargo	Right cargo door harness to the body harness, right rear of the passenger compartment center of the right D-pillar	• *Body Harness Routing - Right Rear Passenger Compartment (1 of 2)* • *Body Harness Routing - Right Rear Passenger Compartment (2 of 2)* • *Rear Cargo Doors Harness Routing (Passenger or Cargo)*	*X400 Rear Cargo Door Harness to Body Harness*
X403	Rear Cargo Door Harness to Body Harness	UVC	Rear cargo door harness to body harness,	• *Body Harness Routing - Right Rear Passenger Compartment (1 of 2)* • *Body Harness Routing - Right Rear Passenger Compartment (2 of 2)*	• *X403 Body Harness to Body Harness (CARGO)* • *X403 Body Harness to Body Harness (PASSENGER)* • *X403 Rearview Camera Harness to Body Harness (5BV)* • *X403 Rearview Camera Harness to Body Harness (-5BV)*
X405	Cutaway Rear Lighting Connector to Chassis Harness	Cutaway	Cutaway rear lighting connector to the chassis harness, left rear frame rail	*Chassis Harness Routing (L96 or LC8)*	*X405 Cutaway Rear Lighting Connector to Chassis Harness*
X407	Auxiliary HVAC Harness to Body Harness	C36 or C69	Rear HVAC harness to the body harness, left rear of the passenger compartment upper back side of the auxiliary HVAC module at the D-pillar	• *Body Harness Routing - Left Rear (Passenger or Cargo)* • *Body Harness Routing - Right Rear Passenger Compartment (1 of 2)*	*X407 Auxiliary HVAC Harness to Body Harness*
X408	Rear Bumper Harness to Chassis Harness	UD7 or UFT	Rear bumper harness to chassis harness,	*Rear Bumper Harness Routing*	*X408 Rear Bumper Harness to Chassis Harness*
X409	Auxiliary HVAC Harness to Body Harness	C36 or C69	Rear HVAC harness to body harness, left rear of the passenger compartment upper back side of the auxiliary HVAC module	*Body Harness Routing - Left Rear (Passenger or Cargo)*	*X409 Auxiliary HVAC Harness to Body Harness*
X410	Left Rear Lamp Harness to Body Harness	Passenger or Cargo	Left Tail Lamp Assembly Harness to Body Harness, left rear of the passenger compartment at the D-pillar	• *Body Harness Routing - Left Rear (Passenger or Cargo)* • *Body Harness Routing - Right Rear Passenger Compartment (1 of 2)*	*X410 Left Rear Lamp Harness to Body Harness*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
X411	Left Rear Cargo Door Harness to Body Harness	Passenger or Cargo	Left cargo door harness to the body harness, left rear of the passenger compartment center of the left D-pillar	• *Body Harness Routing - Left Rear (Passenger or Cargo)* • *Body Harness Routing - Right Rear Passenger Compartment (1 of 2)* • *Rear Cargo Doors Harness Routing (Passenger or Cargo)*	*X411 Left Rear Cargo Door Harness to Body Harness*
X412	Rear Cargo Door Harness to Body Harness	Passenger or Cargo	Right cargo door harness to the body harness, right rear of the passenger compartment center of the right D-pillar	• *Body Harness Routing - Right Rear Passenger Compartment (1 of 2)* • *Body Harness Routing - Right Rear Passenger Compartment (2 of 2)* • *Rear Cargo Doors Harness Routing (Passenger or Cargo)*	*X412 Rear Cargo Door Harness to Body Harness*
X415	Rear Speaker Harness to Body Harness	Passenger or Cargo	Rear overhead speakers jumper harness to the body harness, rear of the passenger compartment center of the rear roof rail	• *Body Harness Routing - Right Rear Passenger Compartment (1 of 2)* • *Body Harness Routing - Right Rear Passenger Compartment (2 of 2)*	*X415 Rear Speaker Harness to Body Harness*
X419	Center High Mounted Stop Lamp Harness to Body Harness	Passenger or Cargo	CHMSL harness to the body harness, rear of the passenger compartment center of the rear roof rail	• *Body Harness Routing - Left Rear (Passenger or Cargo)* • *Body Harness Routing - Right Rear Passenger Compartment (1 of 2)*	*X419 Center High Mounted Stop Lamp Harness to Body Harness*
X420	Right Rear Lamp Harness to Body Harness	Passenger or Cargo	Right Tail Lamp Assembly Harness to Body Harness, right rear of the passenger compartment at the D-pillar	• *Body Harness Routing - Right Rear Passenger Compartment (1 of 2)* • *Body Harness Routing - Right Rear Passenger Compartment (2 of 2)* • *Body Harness Routing - Roof Area*	*X420 Right Rear Lamp Harness to Body Harness*

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
X421	Body Harness to Headliner Harness	—	Body harness to rear headliner harness	• *Body Harness Routing - Right Rear Passenger Compartment (1 of 2)* • *Body Harness Routing - Roof Area*	*X421 Body Harness to Headliner Harness*
X460	Chassis Harness to Trailer Provision Harness	Cutaway with UY7 and NE7	Trailer Provision to Chassis Harness, in rear near Trailer Harness	—	*X460 Chassis Harness to Trailer Provision Harness*
X500	Driver Door Harness to Body Harness	—	Driver door harness to the body harness, behind the left kick panel	*Body Harness Routing - Left Front of Passenger Compartment*	*X500 Driver Door Harness to Body Harness*
X501	Air Bag Jumper Harness to Driver Door Harness	ASF	Driver side impact sensor harness to the driver door harness, in the driver door behind the trim panel	—	*X501 Air Bag Jumper Harness to Driver Door Harness*
X600	Passenger Door Harness to Body Harness	—	Passenger door harness to the body harness, behind the right kick panel	• *Body Harness Routing - Right Front of Passenger Compartment (1 of 2)* • *Body Harness Routing - Right Front of Passenger Compartment (2 of 2)*	*X600 Passenger Door Harness to Body Harness*
X601	Air Bag Jumper Harness to Passenger Door Harness	ASF	Passenger side impact sensor harness to the passenger door harness, in the passenger door behind the trim panel	—	*X601 Air Bag Jumper Harness to Passenger Door Harness*
X901	Defogger Jumper Harness to Left Rear Cargo Door Harness	C49	Rear window defogger jumper harness to the left cargo door harness, in the left cargo door	*Rear Cargo Doors Harness Routing (Passenger or Cargo)*	*X901 Defogger Jumper Harness to Left Rear Cargo Door Harness*
X902	Defogger Jumper Harness to Right Rear Cargo Door Harness	C49	Rear window defogger jumper harness to the right cargo door harness, in the right cargo door	*Rear Cargo Doors Harness Routing (Passenger or Cargo)*	*X902 Defogger Jumper Harness to Right Rear Cargo Door Harness*
G100	Forward Lamp Harness	—	Left front of the engine compartment, attached to the front of the left fender	*G100 and G101*	—
G101	Forward Lamp Harness	—	Right front of the engine compartment, attached near the front of the right fender	*G100 and G101*	—
G102	Engine Harness	—	Rear of the engine compartment, left rear of the engine on the left cylinder head	*G102 and G103 (L96 or LC8)*	—
G103	Engine Harness	—	Rear of the engine compartment, left rear of the engine on the left cylinder head	*G102 and G103 (L96 or LC8)*	—
G104	Negative Battery Cable	—	Mounted on the engine, extending towards the battery	—	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
G105	Negative Battery Cable	—	Front of the engine compartment, right front of the inner frame rail	—	—
G106	Negative Battery Cable	—	Front of the engine compartment, right front fender	—	—
G107	Engine Harness	LV1	Rear of the engine compartment, left rear of the engine on the left cylinder head	*G107 and G108 (LV1)*	—
G108	Engine Harness	LV1	Rear of the engine compartment, towards top of the engine	*G107 and G108 (LV1)*	—
G300	Chassis Harness	—	Left side outer frame, near the EBCM	• *Chassis Harness Routing (L96 or LC8)* • *G300, G400, G404 and G405*	—
G301	Instrument Panel	—	Left front of the passenger compartment, behind the kick panel next to G302	—	—
G302	Instrument Panel	—	Left front of the passenger compartment, behind the kick panel next to G301	*G302 and G347*	—
G304	Instrument Panel	—	Right front of the passenger compartment, behind the kick panel	*G304*	—
G305	Auxiliary Battery Negative Cable	TP2 or LWN	Left center outer frame rail, near the auxiliary battery	• *Frame and Underbody Components (2 of 2)* • *G305*	—
G347	Body Harness	—	Left side of the passenger compartment, lower left B-pillar part of JX347	*G302 and G347*	—
G348	Body Harness	—	Right side of the passenger compartment, lower right B-pillar part of JX348	—	—
G400	Chassis Harness	LWN	Left rear inner side frame rail	*G300, G400, G404 and G405*	—
G401	Body Harness	Passenger or Cargo	Right rear of the passenger compartment, upper right D-pillar	*G401 and G402 (Passenger or Cargo)*	—
G402	Body Harness	Passenger or Cargo	Left rear of the passenger compartment, center left D-pillar	*G401 and G402 (Passenger or Cargo)*	—
G403	Side Access Panel Harness	PRP	Left rear of the passenger compartment, center left D-pillar	—	—
G404	Chassis Harness	—	In vehicle underbody, near center, on left frame rail	*G300, G400, G404 and G405*	—
G405	Chassis Harness	LWN	In vehicle underbody, near center, on left frame rail	*G300, G400, G404 and G405*	—
J100	Forward Lamp Harness	—	At the left front of the engine compartment, just behind the left front headlamp assembly	—	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J101	Engine Harness	—	In the engine harness, on the right side of the engine, approximately 5 cm (2 in) from the MAP sensor breakout	• *Engine Harness Routing - Engine Compartment (LV1)* • *Engine Harness Routing - Left Rear of Engine (L96 or LC8)*	—
J102	Engine Harness	—	In the engine harness, on the right side of the engine, approximately 6 cm (2 in) from the MAP sensor breakout	• *Engine Harness Routing - Engine Compartment (LV1)* • *Engine Harness Routing - Left Rear of Engine (L96 or LC8)*	—
J105	Fuse Block Jumper Harness	9L7	In the fuse block jumper harness, between KR81 Auxiliary Battery Relay 1 and X50B Fuse Block – Underhood Auxiliary	—	—
J106	Fuse Block Jumper Harness	9L7	In the fuse block jumper harness	—	—
J110	Forward Lamp Harness	—	In the forward lamp harness, Left front of the vehicle, approximately 12 cm (5 in) from the left headlamp connector breakout	*Forward Lamp Harness Routing*	—
J115	Engine Harness	—	In the engine harness, in the right front of the engine compartment, approximately 15 cm (6 in) from the X101 breakout	• *Engine Harness Routing - Engine Compartment (LV1)* • *Engine Harness Routing - Front (L96 or LC8)*	—
J117	Engine Harness	M5U	In the engine harness, approximately 6 cm (2.4 in) from the exhaust temperature sensor 1 breakout	—	—
J118	Engine Harness	M5U	In the engine harness, approximately 7 cm (2.75 in) from the reductant injector breakout	—	—
J119	Chassis Harness	K08	In the chassis harness, near the left front inner frame rail, approximately 15 cm (6 in) from the coolant heater breakout	—	—
J121	Forward Lamp Harness	—	In the forward lamp harness, near the front center of the vehicle, approximately 48 cm (19 in) from the left headlamp breakout	*Forward Lamp Harness Routing*	—
J122	Forward Lamp Harness	—	In the forward lamp harness, near the left front of the vehicle, approximately 12 cm (5 in) from the underhood fuse block X4 breakout	*Forward Lamp Harness Routing*	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J123	Engine Harness	L96, or LC8	In the engine harness, near the left front side of the vehicle, approximately 16 cm (6 in) from the underhood fuse block X1 breakout	*Engine Harness Routing - Front (L96 or LC8)*	—
J125	Engine Harness	LWN	In the engine harness, approximately 24.5 cm (9.6 in) from the cooling fan resistor breakout	—	—
J126	Engine Harness	LWN	In the engine harness, approximately 25.5 cm (10 in) from the horn assembly breakout	—	—
J127	Engine Harness	LWN	In the engine harness, approximately 12.0 cm (4.7 in) from the brake fluid level switch breakout	—	—
J128	Engine Harness	LWN	In the engine harness, approximately 14.5 cm (5.7 in) from the fuse block – fuel heater breakout	—	—
J135	Engine Harness	LWN	In the engine harness, approximately 24.5 cm (9.6 in) from the fuse block – fuel heater breakout	—	—
J143	Engine Harness	LV1, L96, or LC8	Adjacent to B52C Heated Oxygen Sensor - Bank 1 Sensor 1 and B52E Heated Oxygen Sensor - Bank 2 Sensor 1	*Engine Harness Routing - Engine Compartment (LV1)*	—
J144	Engine Harness	LV1, L96, or LC8	Adjacent to B52D Heated Oxygen Sensor - Bank 1 Sensor 2 and B52F Heated Oxygen Sensor - Bank 2 Sensor 2	*Engine Harness Routing - Engine Compartment (LV1)*	—
J170	Engine Harness	LV1	In the engine harness, approximately 24.5 cm (9.6 in) from ignition coil 5	*Engine Harness Routing - Engine Compartment (LV1)*	—
J171	Engine Harness	LV1	In the engine harness, approximately 26 cm (10.2 in) from ignition coil 6	*Engine Harness Routing - Engine Compartment (LV1)*	—
J175	Transmission Internal Harness	M5U	Within the automatic transmission assembly	—	—
J176	Transmission Internal Harness	M5U	Within the automatic transmission assembly	—	—
J177	Transmission Internal Harness	M5U	Within the automatic transmission assembly	—	—
J181	Ignition Coil Jumper Harness	L96, or LC8	In the ignition coil jumper harness for bank 1, approximately 5 cm (2.0 in) from the X126 breakout	—	—
J182	Left Ignition Coil Harness	LV1, L96, or LC8	In the odd ignition/coil module jumper harness, top left of the engine	*Engine Harness Routing - Engine Compartment (LV1)*	—
J183	Right Ignition Coil Harness	L96, or LC8	In the even ignition/coil module jumper harness, top right of the engine	—	—
J184	Left Ignition Coil Harness	LV1, L96, or LC8	In the odd ignition/coil module jumper harness, top left of the engine	*Engine Harness Routing - Engine Compartment (LV1)*	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J185	Right Ignition Coil Harness	LV1, L96, or LC8	In the even ignition/coil module jumper harness, top right of the engine	*Engine Harness Routing - Engine Compartment (LV1)*	—
J188	Right Ignition Coil Harness	LV1, L96, or LC8	In the even ignition/coil module jumper harness, top right of the engine	*Engine Harness Routing - Engine Compartment (LV1)*	—
J201	Instrument Panel	UFL	In the instrument panel harness, approximately 2 cm (0.79 in) from the park brake switch breakout	—	—
J202	Steering Column Harness	—	In the steering column harness, approximately 25 cm (9 in) from the X200 connector	—	—
J203	Steering Column Harness	—	In the steering column harness, approximately 27 cm (10.5 in) from the X200 connector	—	—
J205	Steering Column Harness	—	In the steering column harness, approximately 30 cm (12 in) from the X200 connector	—	—
J207	Instrument Panel	—	In the instrument panel harness, center of the instrument panel, approximately 70 cm (27 in) from the radio and HVAC control assembly breakout	*Instrument Panel Harness Routing - Dash Area (2 of 2)*	—
J208	Steering Wheel Harness	K34 with W1Y	In the steering wheel harness, near the X200 connector	—	—
J209	Steering Wheel Harness	K34 with W1Y	In the steering wheel harness, near the X200 connector	—	—
J210	Steering Wheel Harness	K34 or W1Y	In the steering wheel harness, near the X200 connector	—	—
J211	Instrument Panel	UD7 or UFT	In the engine compartment, approximately 30 cm (11.8 in) from the windshield washer pump	—	—
J223	Instrument Panel	UVC	Adjacent to K9 Body Control Module	—	—
J241	Instrument Panel	—	In the instrument panel harness, center of the instrument panel, approximately 13.5 cm (5.3 in) from the parking assist control module breakout	—	—
J244	Instrument Panel	—	In the instrument panel harness, left side of the instrument panel, approximately 12 cm (5 in) from the X200 breakout towards the instrument panel cluster connector	*Instrument Panel Harness Routing - Dash Area (2 of 2)*	—
J245	Instrument Panel	DEB or DE5	In the instrument panel harness, center of the instrument panel, approximately 30 cm (12 in) from the radio and HVAC control assembly breakout	*Instrument Panel Harness Routing - Dash Area (2 of 2)*	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J246	Instrument Panel	DEB or DE5	In the instrument panel harness, center of the instrument panel, approximately 43.5 cm (17 in) from the radio and HVAC control assembly breakout	*Instrument Panel Harness Routing - Dash Area (2 of 2)*	—
J247	Instrument Panel	—	In the instrument panel harness, left side of the instrument panel, approximately 36 cm (14.37 in) from the C200 breakout towards the underhood fuse block	*Instrument Panel Harness Routing - Dash Area (2 of 2)*	—
J248	Instrument Panel	—	In the instrument panel harness, left side of the instrument panel, approximately 8 cm (3.14 in) from the C200 breakout towards the instrument panel cluster connector	*Instrument Panel Harness Routing - Dash Area (2 of 2)*	—
J249	Instrument Panel	—	In the instrument panel harness, right side of the instrument panel, approximately 21 cm (8 in) from the G304 breakout	*Instrument Panel Harness Routing - Dash Area (2 of 2)*	—
J250	Instrument Panel	—	In the instrument panel harness, right side of the instrument panel, approximately 5 cm (2.16 in) from the air temperature actuator connector breakout towards the inflatable restraint instrument panel module connector	*Instrument Panel Harness Routing - Dash Area (2 of 2)*	—
J263	Instrument Panel	TP2	In the instrument panel harness, left side of the instrument panel, approximately 36 cm (14.37 in) from the C200 breakout towards the underhood fuse block	—	—
J264	Steering Column Harness	—	In the steering wheel harness, approximately 20 cm (8 in) from the X200 connector	—	—
J270	Instrument Panel	U2K or UBS	In the instrument panel harness, approximately 15 cm (6 in) from the digital radio receiver and cigar lighter connectors breakout	—	—
J271	Instrument Panel	U2K, UBS, or UE1	In the instrument panel harness, approximately 7.5 cm (3 in) from the vehicle communication interface module and cigar lighter connectors breakout	—	—
J280	Instrument Panel	Cutaway without YF7	In the instrument panel harness, approximately 20 cm (7.9 in) from the body fuse block and air bag module connectors breakout	—	—
J300	Side Access Panel Harness	PRP	Slightly forward of X53A Fuse Block - Rear Body	—	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J301	Chassis Harness	LV1, L96, or LC8	In the chassis harness, left side frame, approximately 21 cm (8 in) from the fuel pump connector breakout	*Chassis Harness Routing (L96 or LC8)*	—
J302	Instrument Panel	PRP	Adjacent to K9 Body Control Module	—	—
J307	Front Headliner Harness	C69 with YF7	In the front headliner harness, center of the headliner, approximately 15 cm (6 in) from the X205 breakout towards the left vanity mirror lamp connector	—	—
J308	Body Harness	C69	In the body harness, left side of the passenger compartment, approximately 22 cm (9 in) from the breakout for the door jamb switch LR side	• *Body Harness Routing - Left Rear (Passenger or Cargo)* • *Body Harness Routing - Rear Overview (Passenger or Cargo)* • *Body Harness Routing - Right Rear Passenger Compartment (2 of 2)*	—
J309	Side Access Panel Harness	PRP	Adjacent to X53A Fuse Block - Rear Body	—	—
J310	Body Harness	C69	In the body harness, left side of the passenger compartment, approximately 32 cm (12.79 in) from the breakout for the door jamb switch left rear side	• *Body Harness Routing - Left Rear (Passenger or Cargo)* • *Body Harness Routing - Rear Overview (Passenger or Cargo)* • *Body Harness Routing - Right Rear Passenger Compartment (1 of 2)* • *Body Harness Routing - Right Rear Passenger Compartment (2 of 2)*	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J311	Body Harness	C69	In the body harness, left side of the passenger compartment, approximately 5 cm (2 in) from the door jamb switch LR side breakout	• *Body Harness Routing - Left Rear (Passenger or Cargo)* • *Body Harness Routing - Rear Overview (Passenger or Cargo)* • *Body Harness Routing - Right Rear Passenger Compartment (1 of 2)* • *Body Harness Routing - Right Rear Passenger Compartment (2 of 2)*	—
J312	Body Harness	WRF	In the body harness, approximately 37.5 cm (14.8 in) from the X307 breakout	• *Body Harness Routing - Left Front of Passenger Compartment* • *Body Harness Routing - Left Rear (Passenger or Cargo)* • *Body Harness Routing - Right Front of Passenger Compartment (1 of 2)* • *Body Harness Routing - Right Rear Passenger Compartment (2 of 2)*	—
J313	Body Harness	WRF	In the body harness, approximately 28 cm (11 in) from the X307 breakout	• *Body Harness Routing - Left Front of Passenger Compartment* • *Body Harness Routing - Left Rear (Passenger or Cargo)* • *Body Harness Routing - Right Front of Passenger Compartment (1 of 2)* • *Body Harness Routing - Right Rear Passenger Compartment (2 of 2)*	—
J314	Front Headliner Harness	—	In the front headliner harness, center of the headliner, approximately 22 cm (8.5 in) from the X205 breakout towards the left vanity mirror lamp connector	—	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J315	Chassis Harness	—	In the chassis harness, left side frame, approximately 31 cm (12 in) from the G300 breakout	*Chassis Harness Routing (L96 or LC8)*	—
J316	Body Harness	WRF	In the body harness, approximately 9 cm (3.5 in) from the X307 breakout	• *Body Harness Routing - Left Front of Passenger Compartment* • *Body Harness Routing - Left Rear (Passenger or Cargo)* • *Body Harness Routing - Right Front of Passenger Compartment (1 of 2)* • *Body Harness Routing - Right Rear Passenger Compartment (2 of 2)*	—
J317	Body Harness	WRF	In the body harness, approximately 16 cm (6.3 in) from the X307 breakout	*Body Harness Routing - Left Rear (Passenger or Cargo)*	—
J318	Body Harness	WRF	In the body harness, approximately 26 cm (10.2 in) from the X307 breakout	*Body Harness Routing - Left Rear (Passenger or Cargo)*	—
J322	Body Harness	Cargo or Passenger with AU3	In the body harness, near the front passenger seat, approximately 40 cm (16 in) from the X306 breakout	—	—
J323	Body Harness	Cargo or Passenger with AU3	In the body harness, near the front passenger seat, approximately 20 cm (8 in) from the X306 breakout	—	—
J330	Rear Headliner Harness	Passenger	In the rear headliner harness, center of the headliner, approximately 30 cm (12 in) to the courtesy reading lamp rear breakout	—	—
J331	Body Harness	Passenger	In the body harness, near the front passenger seat, approximately 15 cm (6 in) from the X306 breakout	*Body Harness Routing - Rear Overview (Passenger or Cargo)*	—
J332	Front Headliner Harness	DH6 with YF7	In the front headliner harness, center of the headliner, approximately 11 cm (4 in) from the front right sunshade breakout	—	—
J333	Front Headliner Harness	DH6 without YF7	In the front headliner harness, center of the headliner, approximately 20 cm (8 in) from the right sunshade breakout	—	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J334	Body Harness	UVC	Approximately 5 inches rearward of X53A Fuse Block - Rear Body	• *Body Harness Routing - Left Front of Passenger Compartment* • *Body Harness Routing - Right Front of Passenger Compartment (1 of 2)*	—
J335	Body Harness	U80	In the body harness, approximately 12 cm (4.7 in) from the Multi-axis acceleration sensor module breakout	*Body Harness Routing - Right Front of Passenger Compartment (2 of 2)*	—
J348	Side Access Panel Harness	PRP	In the cargo area, in-between the headliner and the roof, in-between the left side access panel and the right side access panel	—	—
J350	Side Access Panel Harness	PRP with UF2	In the cargo area, in-between the headliner and the roof, in-between the left side access panel and the right side access panel	—	—
J355	Front Headliner Harness	C69 with YF7	In the front headliner harness, center of the headliner, approximately 61 cm (24 in) from the X205 breakout towards the left vanity mirror lamp connector	—	—
J356	Body Harness	—	In the body harness, on the left front side of the vehicle, approximately 20 cm (7.87 in) from the underhood fuse block breakout	• *Body Harness Routing - Left Front of Passenger Compartment* • *Body Harness Routing - Left Rear (Passenger or Cargo)* • *Body Harness Routing - Rear Overview (Passenger or Cargo)* • *Body Harness Routing - Right Front of Passenger Compartment (1 of 2)* • *Body Harness Routing - Right Rear Passenger Compartment (2 of 2)*	—
J373	Body Harness	Passenger	At the base of the right C-pillar	*Body Harness Routing - Right Rear Passenger Compartment (2 of 2)*	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J374	Body Harness	Cargo without YF7	In the body harness, approximately 20 cm (7.9 in) from the dome lamp – left roof rail breakout	—	—
J375	Body Harness	Cargo without YF7	In the body harness, approximately 20 cm (7.9 in) from the dome lamp – right roof rail breakout	*Body Harness Routing - Right Front of Passenger Compartment (2 of 2)*	—
J376	Body Harness	Cargo or Passenger	In the body harness, approximately 72.5 cm (28.5 in) from the X410 breakout	• *Body Harness Routing - Right Front of Passenger Compartment (2 of 2)* • *Body Harness Routing - Right Rear Passenger Compartment (2 of 2)*	—
J377	Side Access Panel Harness	PRP	Adjacent to X53A	—	—
J378	Side Access Panel Harness	PRP	Adjacent to X53A	—	—
J387	Chassis Harness	Cutaway	In the chassis harness, approximately 6 cm (2.36 in) from the trailer connector breakout	—	—
J388	Chassis Harness	Cutaway	In the chassis harness, approximately 10 cm (3.94 in) from the trailer connector breakout	—	—
J401	Body Harness	C36, C49, or C69	In the body harness, in the left rear of the vehicle, approximately 21 cm (8 in) from the X401 breakout	• *Body Harness Routing - Left Rear (Passenger or Cargo)* • *Body Harness Routing - Rear Overview (Passenger or Cargo)* • *Body Harness Routing - Right Rear Passenger Compartment (1 of 2)*	—
J402	Chassis Harness	—	In the chassis harness, left frame, approximately 20 cm (7.87 in) from the G400 breakout towards the EBCM connector	*Chassis Harness Routing (L96 or LC8)*	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J403	Body Harness	Cargo or Passenger	In the body harness, left rear of the passenger compartment, approximately 18.5 cm (7 in) from the X402 breakout	• *Body Harness Routing - Rear Overview (Passenger or Cargo)* • *Body Harness Routing - Right Rear Passenger Compartment (1 of 2)* • *Body Harness Routing - Right Rear Passenger Compartment (2 of 2)*	—
J404	Chassis Harness	—	In the chassis harness, left frame, approximately 10 cm (4 in) from the G400 breakout towards the EBCM connector	—	—
J405	Rear HVAC Harness	C36 or C69	In the rear HVAC harness, left rear of the passenger compartment, approximately 13 cm (5.31 in) from the auxiliary blower motor relay breakout towards X409	—	—
J406	Chassis Harness	LWN	Within the chassis harness	—	—
J407	Rear Headliner Harness	Passenger	In the rear headliner harness, center of the headliner, approximately 6.5 cm (2.5 in) from X304 towards the rear courtesy/ reading lamp connector	—	—
J408	Side Access Panel Harness	PRP	In the Left Side Access Panel compartment	—	—
J409	Side Access Panel Harness	PRP	In the Right Side Access Panel compartment	—	—
J410	Body Harness	Cargo or Passenger	In the body harness, in the left rear of the vehicle, approximately 47 cm (18 in) from the X401 breakout	• *Body Harness Routing - Left Rear (Passenger or Cargo)* • *Body Harness Routing - Rear Overview (Passenger or Cargo)* • *Body Harness Routing - Right Front of Passenger Compartment (2 of 2)* • *Body Harness Routing - Right Rear Passenger Compartment (1 of 2)* • *Body Harness Routing - Right Rear Passenger Compartment (2 of 2)*	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J411	Rear HVAC Harness	C69	In the rear HVAC harness, left rear of the passenger compartment, approximately 20 cm (8 in) from the blower motor relay breakout, towards X409	—	—
J412	Rear HVAC Harness	C36 or C69	In the rear HVAC harness, left rear of the passenger compartment, approximately 7 cm (2.8 in) from the blower motor relay breakout towards X409	—	—
J413	Rear HVAC Harness	C36 or C69	In the rear HVAC harness, left rear of the passenger compartment, approximately 10 cm (4 in) from the auxiliary blower motor resistor assembly breakout	—	—
J420	Rear Bumper Harness	UD7	In the rear bumper harness, approximately 57 cm (22 in) from the right rear middle object alarm sensor towards the left rear corner object alarm sensor	—	—
J421	Rear Bumper Harness	UD7	In the rear bumper harness, approximately 15 cm (6 in) from the left rear corner object alarm sensor towards the right rear middle object alarm sensor	—	—
J422	Chassis Harness	LWN	In the chassis harness, approximately 11.5 cm (4.5 in) from the wheel speed sensor - left front breakout	—	—
J425	Parking Aid Jumper Harness	UFT	At the rear of the vehicle	*Rear Bumper Harness Routing*	—
J426	Parking Aid Jumper Harness	UFT	At the rear of the vehicle	*Rear Bumper Harness Routing*	—
J450	Body Harness	YF2 or YF7	In the body harness, in the rear of the vehicle, approximately 10 cm (3.93 in) from the X415 breakout	• *Body Harness Routing - Rear Overview (Passenger or Cargo)* • *Body Harness Routing - Right Rear Passenger Compartment (1 of 2)* • *Body Harness Routing - Right Rear Passenger Compartment (2 of 2)*	—

Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J451	Body Harness	YF2 or YF7	In the body harness, in the rear of the vehicle, approximately 17 cm (6.5 in) from the X415 breakout	• *Body Harness Routing - Rear Overview (Passenger or Cargo)* • *Body Harness Routing - Right Rear Passenger Compartment (1 of 2)* • *Body Harness Routing - Right Rear Passenger Compartment (2 of 2)*	—
J452	Body Harness	YF2 or YF7	In the body harness, approximately 17 cm (6.5 in) from the X419 breakout	• *Body Harness Routing - Left Rear (Passenger or Cargo)* • *Body Harness Routing - Rear Overview (Passenger or Cargo)* • *Body Harness Routing - Right Rear Passenger Compartment (1 of 2)* • *Body Harness Routing - Right Rear Passenger Compartment (2 of 2)*	—
J453	Body Harness	YF2 or YF7	In the body harness, in the left rear of the vehicle, approximately 10 cm (4 in) from the X419 breakout	• *Body Harness Routing - Left Rear (Passenger or Cargo)* • *Body Harness Routing - Rear Overview (Passenger or Cargo)* • *Body Harness Routing - Right Rear Passenger Compartment (1 of 2)* • *Body Harness Routing - Right Rear Passenger Compartment (2 of 2)*	—
J500	Driver Door Harness	AU3, DEB, DE5, or A31	In the left front door harness, driver door, approximately 7 cm (3 in) from the left front door speaker breakout	—	—
J501	Driver Door Harness	AU3	In the left front door harness, driver door, approximately 6 cm (2.36 in) from the driver outside rearview mirror breakout	—	—

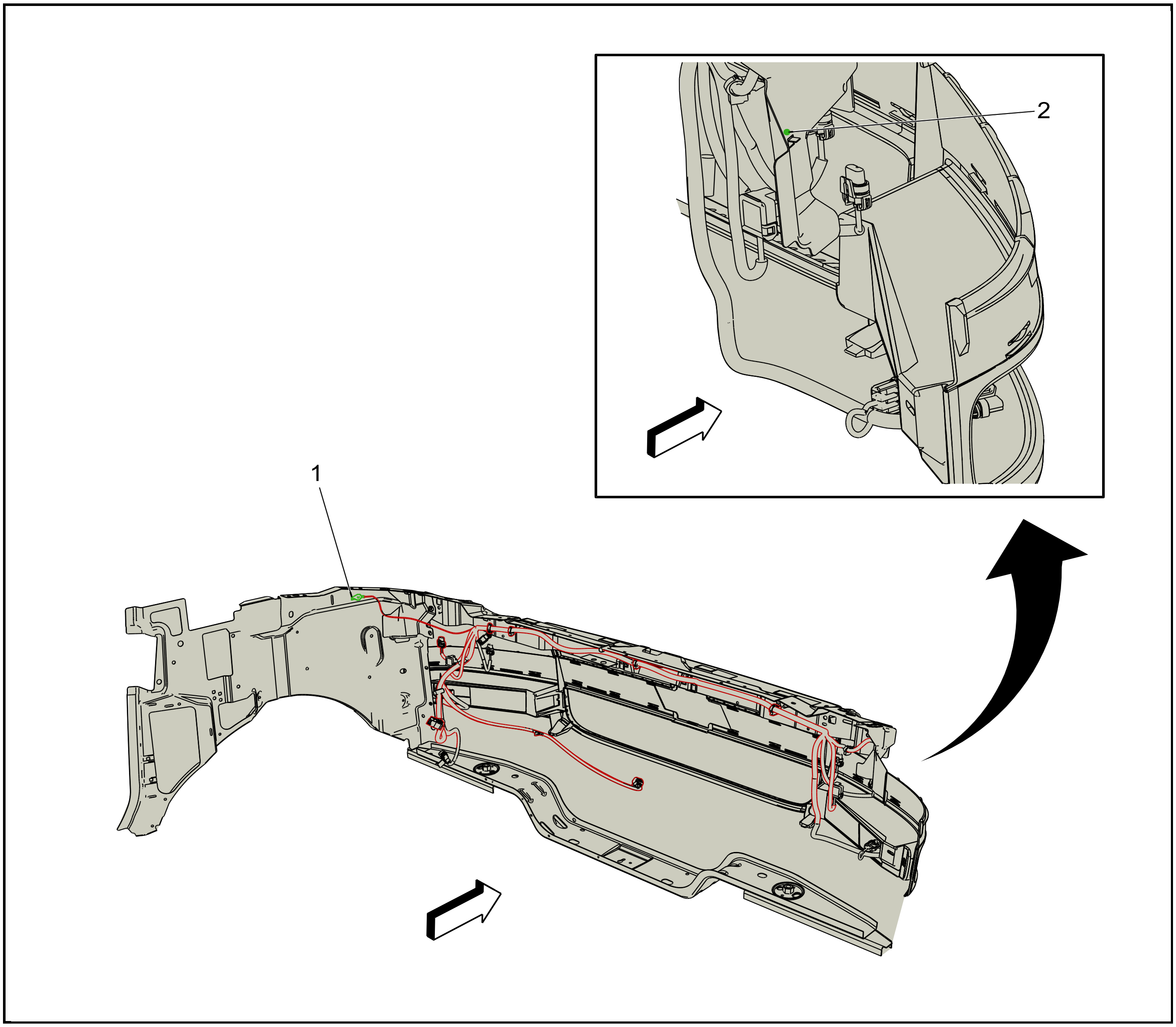
Master Electrical Component List (cont'd)

Code	Name	Option	Location	Locator View	Connector End View
J502	Driver Door Harness	DEB or DE5	In the left front door harness, driver door, approximately 4 cm (2 in) from the left front door speaker breakout	—	—
J600	Passenger Door Harness	AU3, DEB, DE5, or A31	In the right front door harness, front passenger door, approximately 4 cm (2 in) from the passenger outside rearview mirror breakout	—	—
J601	Passenger Door Harness	AU3	In the right front door harness, front passenger door, approximately 5 cm (2 in) from the passenger outside rearview mirror breakout	—	—
J901	Right Rear Cargo Door Harness	Cargo or Passenger with AU3	In the rear cargo door harness, approximately 4 cm (1.5 in) from the X902 breakout	—	—
J902	Right Rear Cargo Door Harness	Cargo or Passenger with C49	In the right rear door harness, right rear cargo door, approximately 12 cm (4.7 in) from the X902 breakout	*Rear Cargo Doors Harness Routing (Passenger or Cargo)*	—
JX200	Instrument Panel Harness	—	In the instrument panel harness, left front side of the floor, where the carpet ends behind the brake pedal next to JX250	*Instrument Panel Harness Routing - Dash Area (1 of 2)*	*JX200 Splice Pack*
JX250	Instrument Panel Harness	—	In the instrument panel harness, left front side of the floor, where the carpet ends behind the brake pedal next to JX200	*Instrument Panel Harness Routing - Dash Area (1 of 2)*	*JX250 Splice Pack*
JX347	Body Harness	—	In the body harness, left side of the passenger compartment, attached to the lower left B-pillar part of G347	• *Body Harness Routing - Left Front of Passenger Compartment* • *Body Harness Routing - Right Front of Passenger Compartment (2 of 2)*	*JX347 Splice Pack*
JX348	Body Harness	—	In the body harness, right side of the passenger compartment, attached to the lower right B-pillar part of G348	*Body Harness Routing - Right Front of Passenger Compartment (1 of 2)*	*JX348 Splice Pack*

Wiring Systems and Power Management

Ground Views

G100 and G101

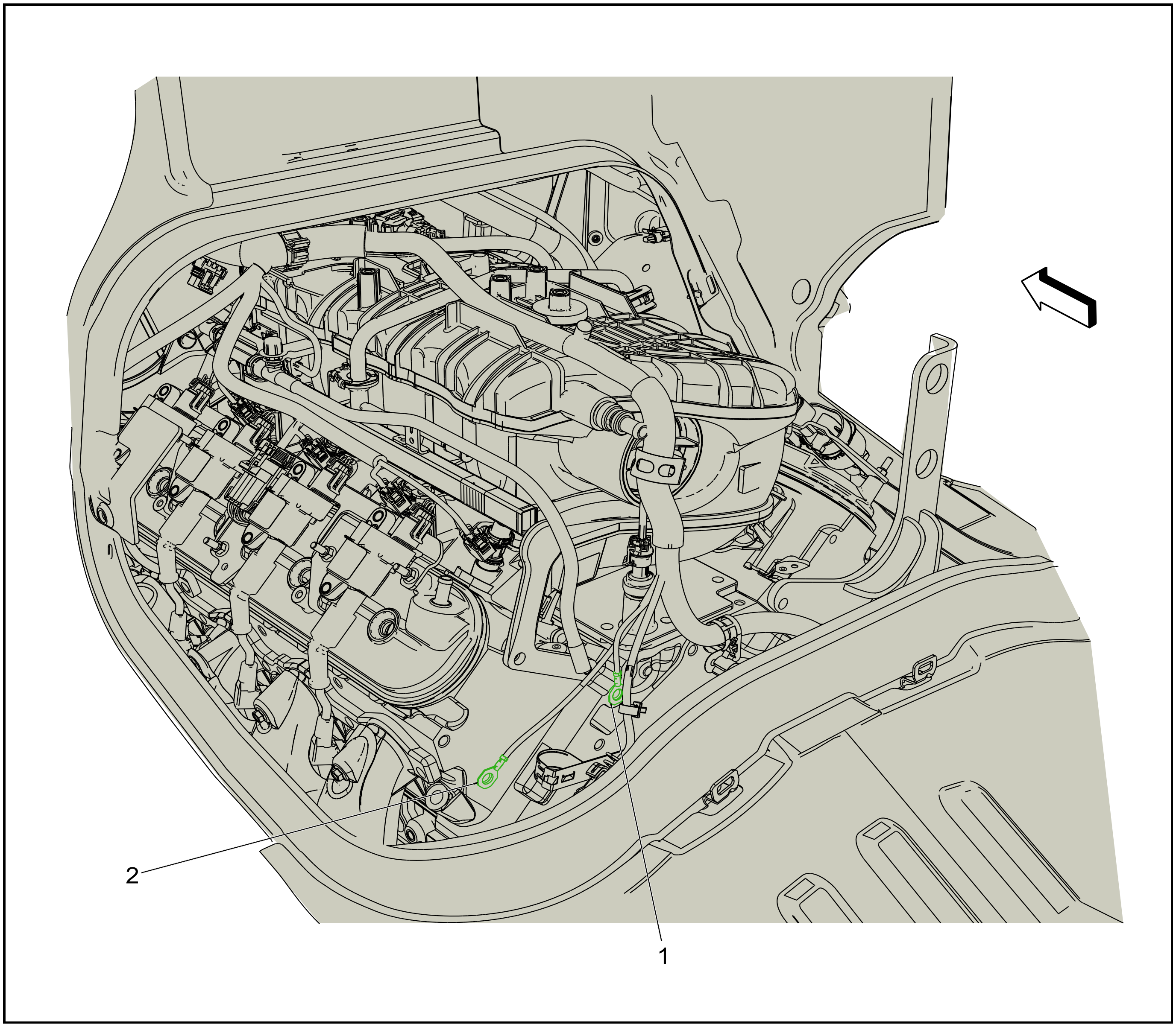


4004314

Items

(1)	G100 Forward Lamp Harness
(2)	G101 Forward Lamp Harness

G102 and G103 (L96 or LC8)

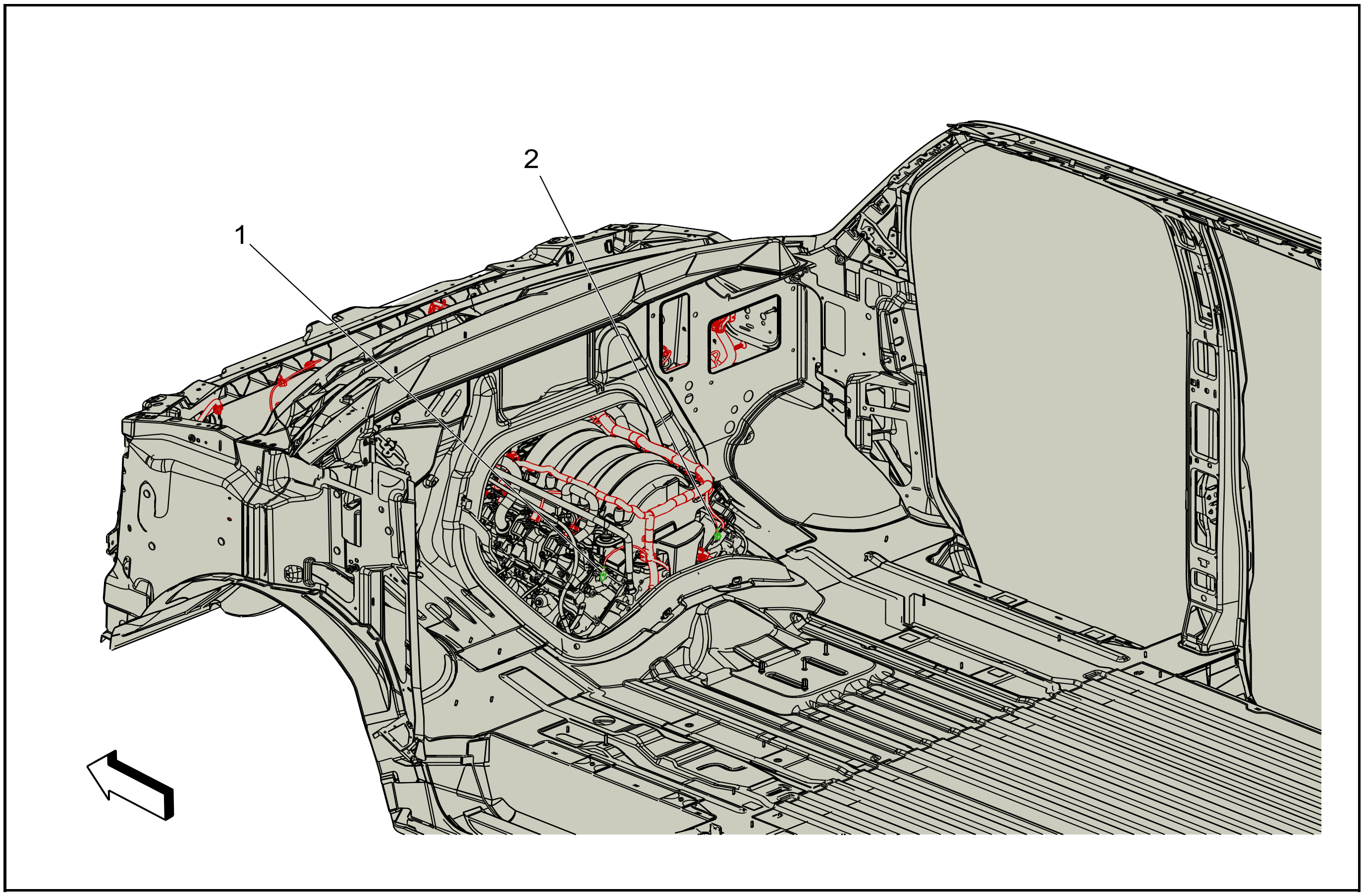


4004324

Items

(1)	G103 Engine Harness
(2)	G102 Engine Harness

G107 and G108 (LV1)

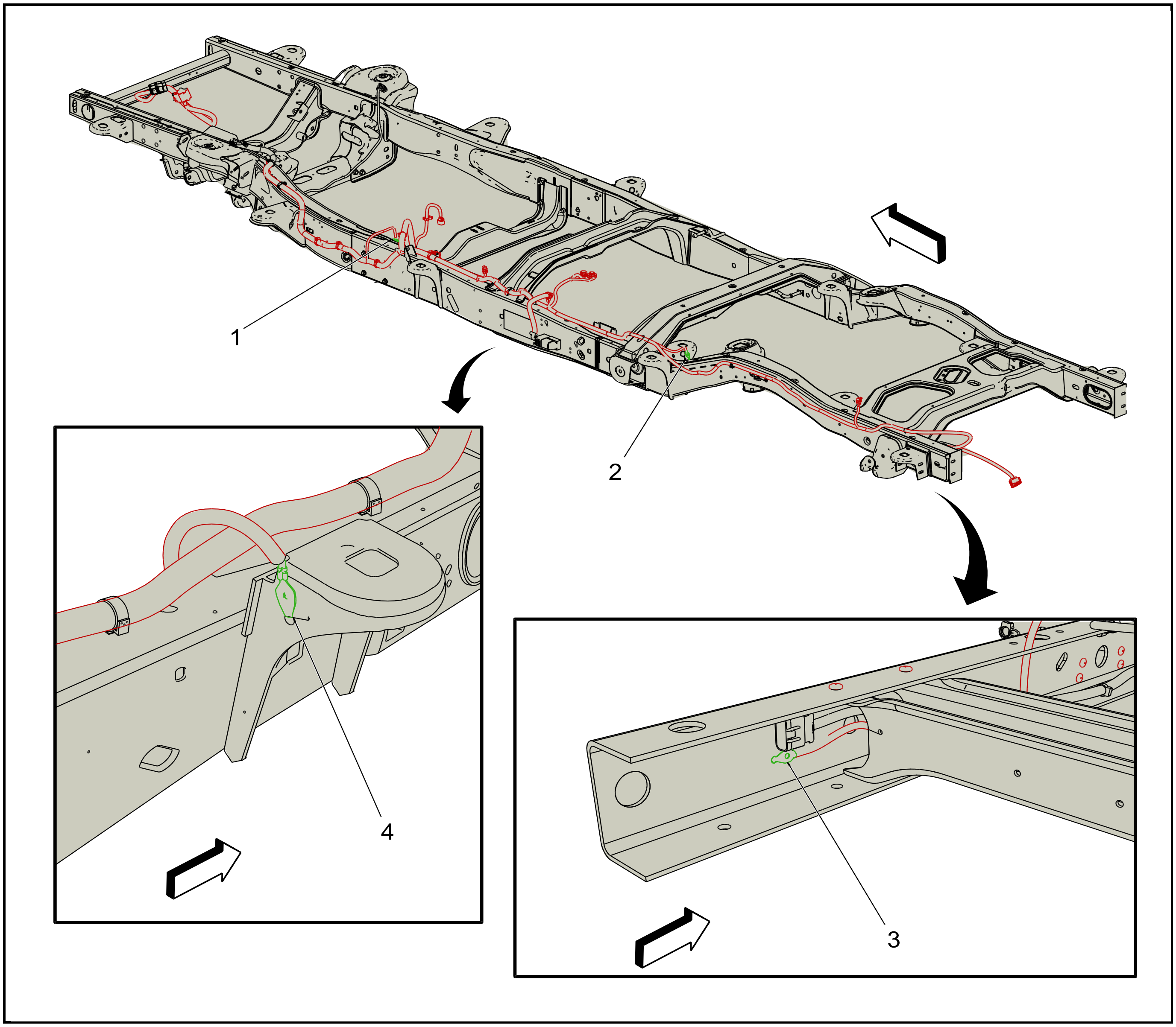


4861786

Items

(1)	G107 Engine Harness (LV1)
(2)	G108 Engine Harness (LV1)

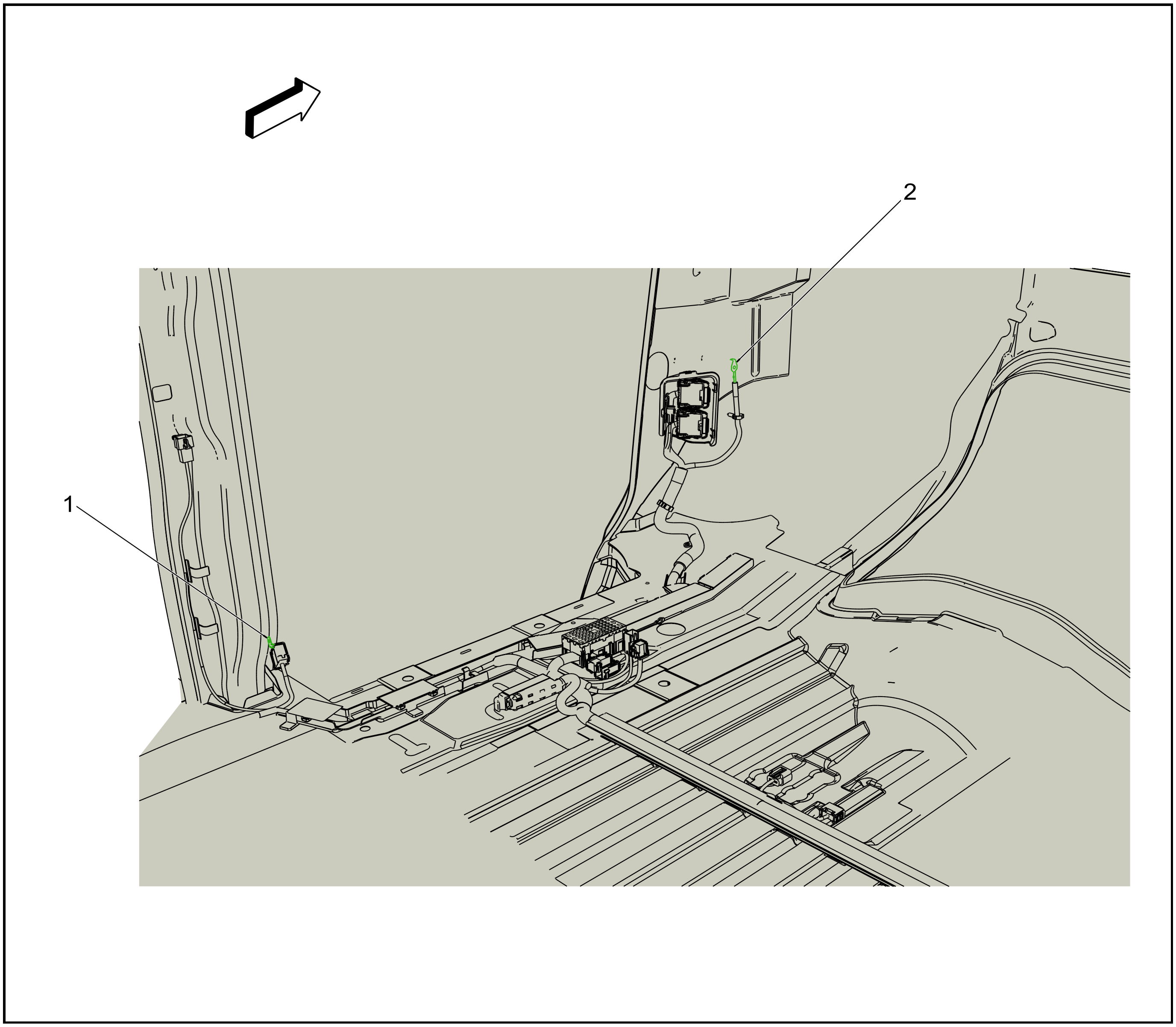
G300, G400, G404 and G405



Items

(1)	G405 Chassis Harness (LWN)
(2)	G400 Chassis Harness (LWN)
(3)	G300 Chassis Harness
(4)	G404 Chassis Harness

G302 and G347

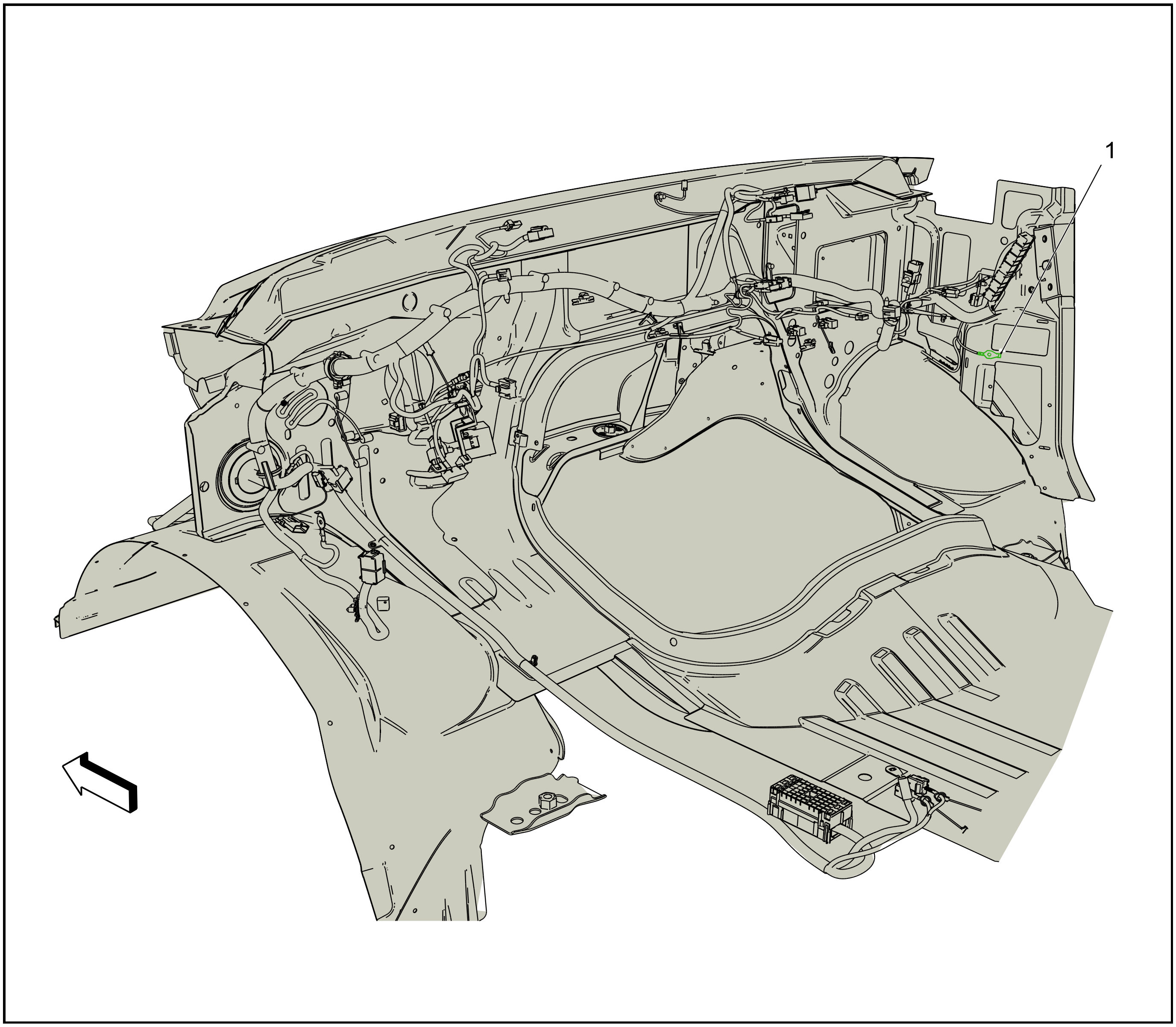


4004327

Items

(1)	G347 Body Harness
(2)	G302 Instrument Panel

G304

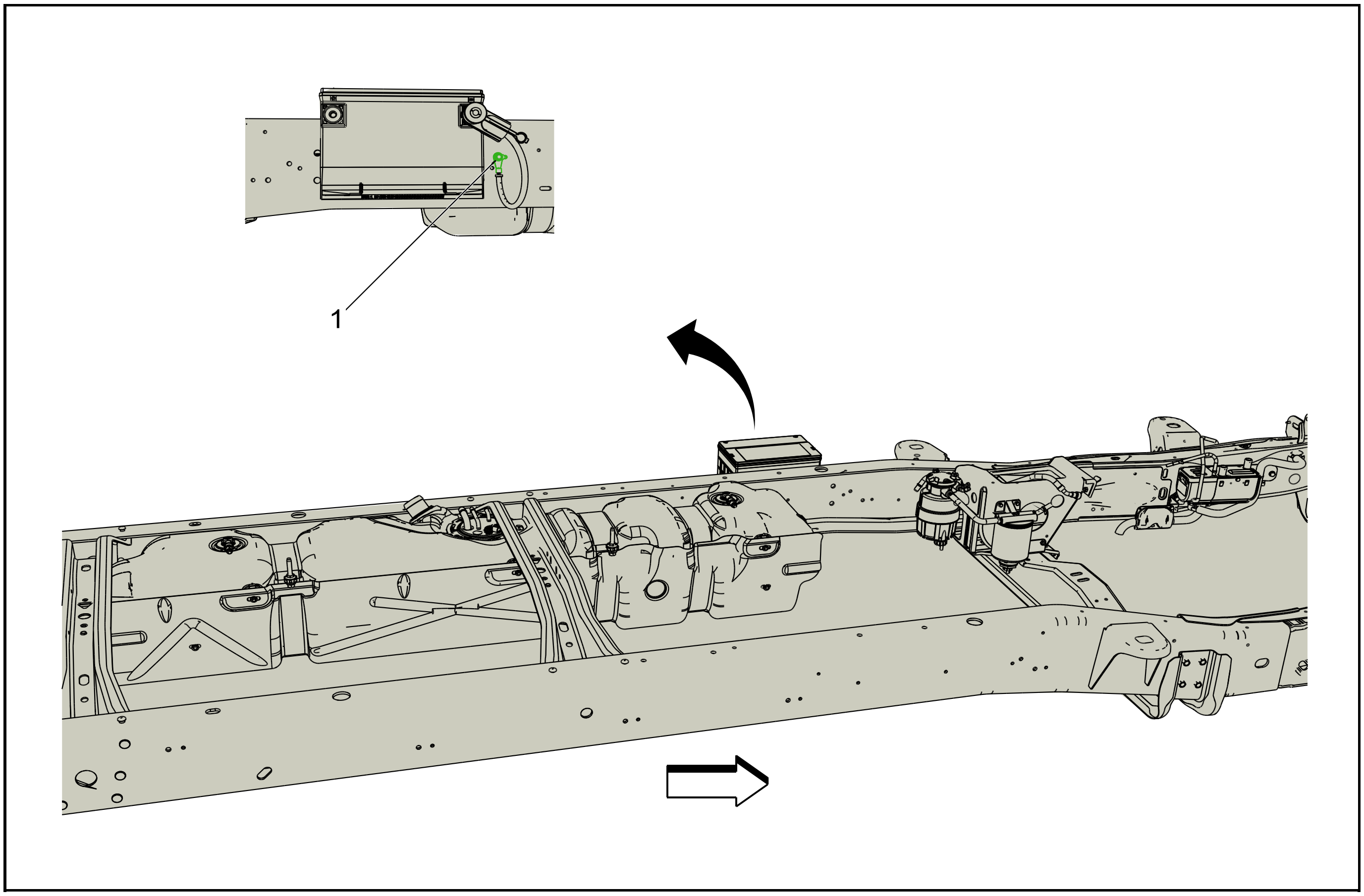


4010006

Items

(1)	G304 Instrument Panel

G305

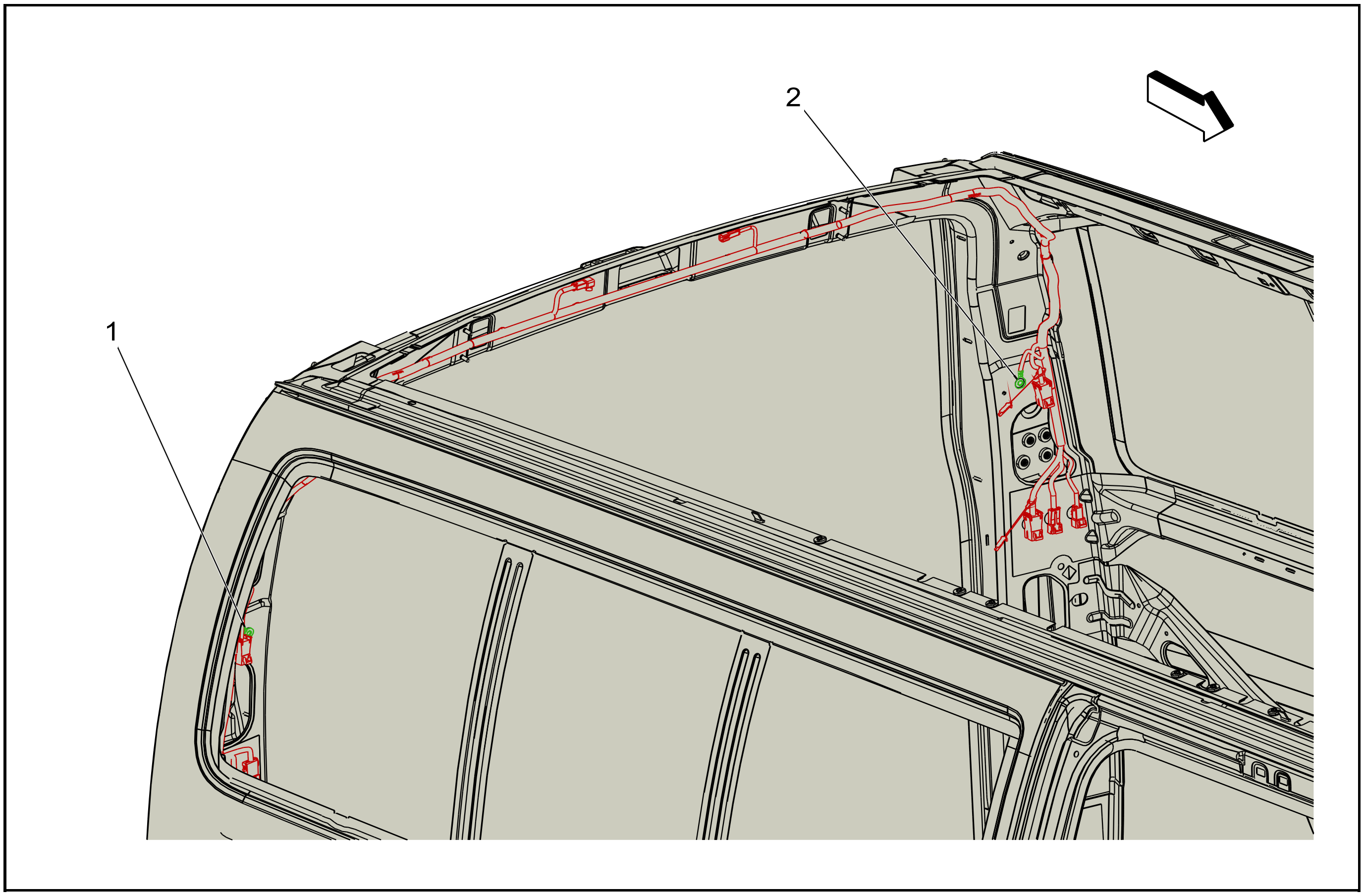


4005659

Items

(1)	G305 Auxiliary Battery Negative Cable (TP2 or LWN)

G401 and G402 (Passenger or Cargo)



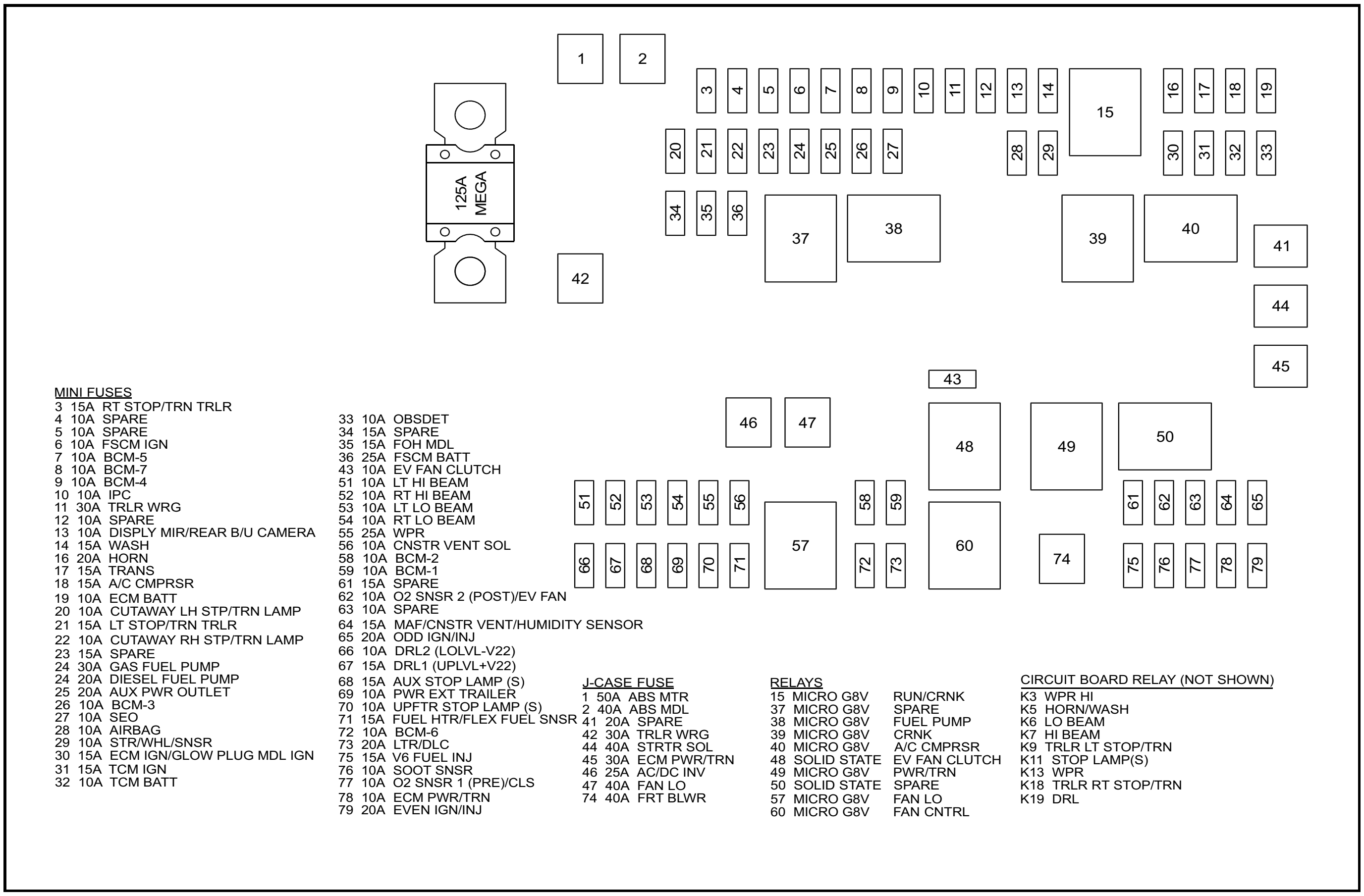
Items

(1) G401 Body Harness (Passenger or Cargo)

(2) G402 Body Harness (Passenger or Cargo)

Electrical Center Identification Views

X50A Fuse Block - Underhood Label



MINI FUSES
3 15A RT STOP/TRN TRLR
4 10A SPARE
5 10A SPARE
6 10A FSCM IGN
7 10A BCM-5
8 10A BCM-7
9 10A BCM-4
10 10A IPC
11 30A TRLR WRG
12 10A SPARE
13 10A DISPLY MIR/REAR B/U CAMERA
14 15A WASH
16 20A HORN
17 15A TRANS
18 15A A/C CMPRSR
19 10A ECM BATT
20 10A CUTAWAY LH STP/TRN LAMP
21 15A LT STOP/TRN TRLR
22 10A CUTAWAY RH STP/TRN LAMP
23 15A SPARE
24 30A GAS FUEL PUMP
24 20A DIESEL FUEL PUMP
25 20A AUX PWR OUTLET
26 10A BCM-3
27 10A SEO
28 10A AIRBAG
29 10A STR/WHL/SNSR
30 15A ECM IGN/GLOW PLUG MDL IGN
31 15A TCM IGN
32 10A TCM BATT
33 10A OBSDET
34 15A SPARE
35 15A FOH MDL
36 25A FSCM BATT
43 10A EV FAN CLUTCH
51 10A LT HI BEAM
52 10A RT HI BEAM
53 10A LT LO BEAM
54 10A RT LO BEAM
55 25A WPR
56 10A CNSTR VENT SOL
58 10A BCM-2
59 10A BCM-1
61 15A SPARE
62 10A O2 SNSR 2 (POST)/EV FAN
63 10A SPARE
64 15A MAF/CNSTR VENT/HUMIDITY SENSOR
65 20A ODD IGN/INJ
66 10A DRL2 (LOLVL-V22)
67 15A DRL1 (UPLVL+V22)
68 15A AUX STOP LAMP (S)
69 10A PWR EXT TRAILER
70 10A UPFTR STOP LAMP (S)
71 15A FUEL HTR/FLEX FUEL SNSR
72 10A BCM-6
73 20A LTR/DLC
75 15A V6 FUEL INJ
76 10A SOOT SNSR
77 10A O2 SNSR 1 (PRE)/CLS
78 10A ECM PWR/TRN
79 20A EVEN IGN/INJ

J-CASE FUSE
1 50A ABS MTR
2 40A ABS MDL
41 20A SPARE
42 30A TRLR WRG
44 40A STRTR SOL
45 30A ECM PWR/TRN
46 25A AC/DC INV
47 40A FAN LO
74 40A FRT BLWR

RELAYS
15 MICRO G8V RUN/CRNK
37 MICRO G8V SPARE
38 MICRO G8V FUEL PUMP
39 MICRO G8V CRNK
40 MICRO G8V A/C CMPRSR
48 SOLID STATE EV FAN CLUTCH
49 MICRO G8V PWR/TRN
50 SOLID STATE SPARE
57 MICRO G8V FAN LO
60 MICRO G8V FAN CNTRL

CIRCUIT BOARD RELAY (NOT SHOWN)
K3 WPR HI
K5 HORN/WASH
K6 LO BEAM
K7 HI BEAM
K9 TRLR LT STOP/TRN
K11 STOP LAMP(S)
K13 WPR
K18 TRLR RT STOP/TRN
K19 DRL

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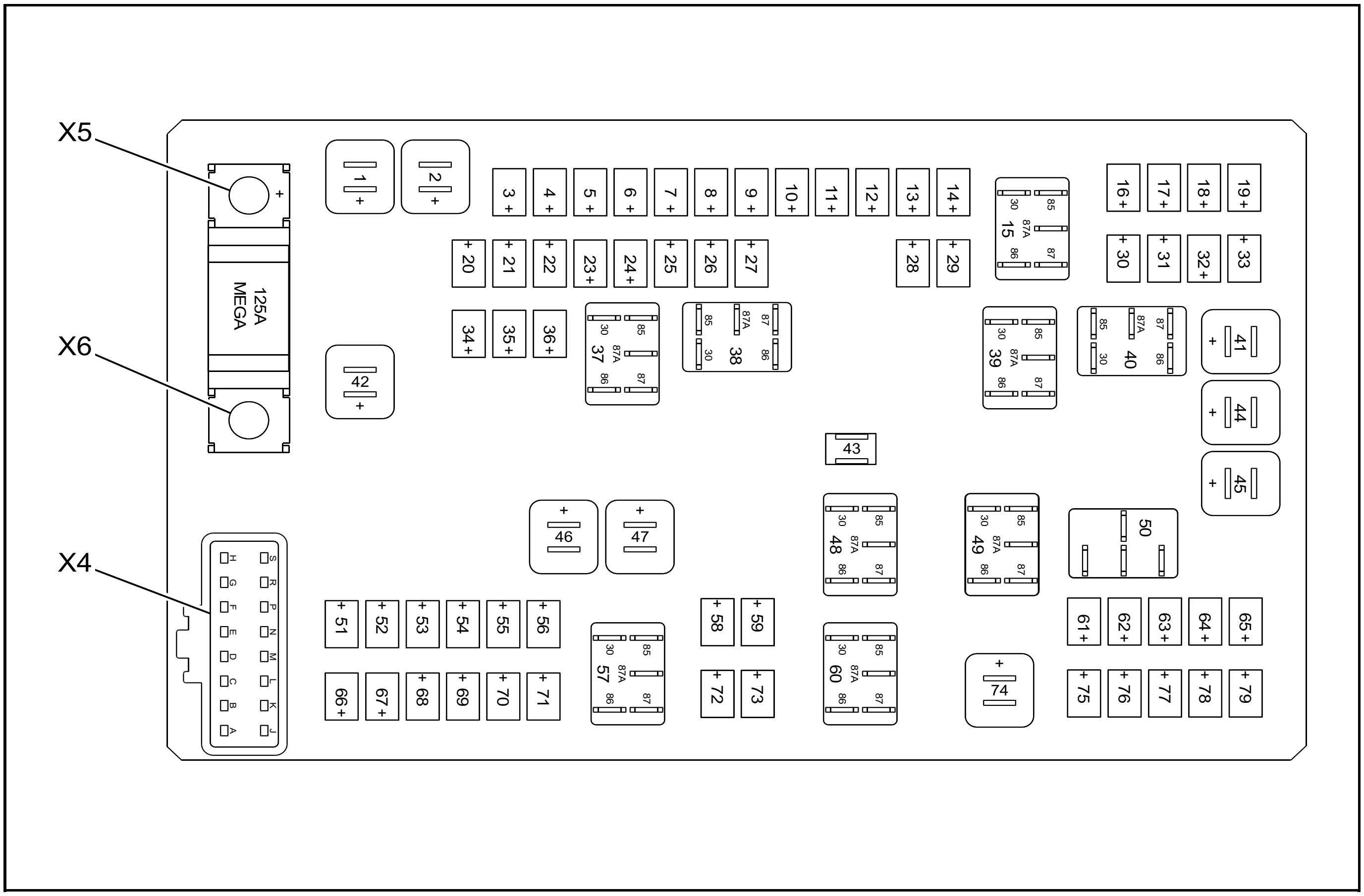
X50A Fuse Block - Underhood Top View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Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Mega Fuses				
—	MEGA	MEGA	125A	• X52A Fuse Block - Passenger Compartment
Mini Fuses				
3	RT STOP/TRN TRLR	F3UA	15A	• X88 Trailer Connector
4	SPARE	F4UA	10A	• Not Used
5	SPARE	F5UA	10A	• Not Used
6	FSCM IGN	F6UA	10A	• E11A Fuel Heater/Water in Fuel Sensor (LWN) • K38 Chassis Control Module (LV1/L96/LC8)
7	BCM-5	F7UA	10A	• K9 Body Control Module
8	BCM-7	F8UA	10A	• K9 Body Control Module
9	BCM-4	F9UA	10A	• K9 Body Control Module
10	IPC	F10UA	10A	• P16 Instrument Cluster
11	TRLR WRG	F11UA	30A	• W8 Blunt Cut - Trailer Provision (UY7)
12	SPARE	F12UA	10A	• Not Used
13	DISPLY MIR/ REAR B/U CAMERA	F13UA	10A	• A10 Inside Rearview Mirror (UVC) • B87 Rearview Camera (UVC)
14	WASH	F14UA	15A	• G24 Windshield Washer Pump
16	HORN	F16UA	20A	• P13 Horn Assembly

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
17	TRANS	F17UA	15A	• Not Used
18	A/C CMPRSR	F18UA	15A	• Q2 A/C Compressor Clutch (C60)
19	ECM BATT	F19UA	10A	• K20 Engine Control Module
20	CUTAWAY LH STP/TRN LAMP	F20UA	10A	• X405
21	LT STOP/TRN TRLR	F21UA	15A	• X88 Trailer Connector
22	CUTAWAY RH STP/TRN LAMP	F22UA	10A	• X405
23	NOX SENSOR	F23UA	15A	• B136 Exhaust Particulate Matter Sensor (LWN) • B195A Nitrogen Oxides Sensor 1 (LWN) • B195B Nitrogen Oxides Sensor 2 (LWN)
24	DIESEL FUEL PUMP	F24UA	20A	• A7 Fuel Pump and Level Sensor Assembly (LWN)
25	AUX PWR OUTLET	F25UA	20A	• X80B Accessory Power Receptacle - Center Console 2
26	BCM-3	F26UA	10A	• K9 Body Control Module
27	SEO	F27UA	10A	• P16 Instrument Cluster
28	AIRBAG	F28UA	10A	• K36 Inflatable Restraint Sensing and Diagnostic Module • S40 Passenger Air Bag Disable Switch (C99)
29	STR/WHL/SNSR	F29UA	10A	• Not Used
30	ECM IGN/GLOW PLUG MDL IGN	F30UA	15A	• K20 Engine Control Module
31	TCM IGN	F31UA	15A	• K71 Transmission Control Module (M5U) • T12 Automatic Transmission Assembly (MYD)
32	TCM BATT	F32UA	10A	• T12 Automatic Transmission Assembly (MYD)
33	OBSDET	F33UA	10A	• B218L Side Object Sensor Module - Left (UFT) • B218R Side Object Sensor Module - Right (UFT) • K182 Parking Assist Control Module (UD7)
34	NOX SENSOR	F34UA	15A	• K115 Reductant Control Module (LWN) • KR121B Reductant Control Module Relay 2 (LWN)
35	FOH MDL	F35UA	15A	• E19 Coolant Heater (K08)
36	FSCM BATT	F36UA	20A	• K38 Chassis Control Module (LV1/L96/LC8)
43	EV FAN CLUTCH	F43UA	10A	• KR20F Cooling Fan Relay (LWN) • Q85 Cooling Fan Clutch (LWN)
51	LT HI BEAM	F51UA	10A	• E4E Headlamp - Left High Beam (V22) • E13L Headlamp - Left (Without V22)
52	RT HI BEAM	F52UA	10A	• E4F Headlamp - Right High Beam (V22) • E13R Headlamp - Right (Without V22)
53	LT LO BEAM	F53UA	10A	• E4G Headlamp - Left Low Beam (V22) • E13L Headlamp - Left (Without V22)
54	RT LO BEAM	F54UA	10A	• E4H Headlamp - Right Low Beam (V22) • E13R Headlamp - Right (Without V22)
55	WPR	F55UA	25A	• KR12B Windshield Wiper Relay
56	CNSTR VENT SOL	F56UA	10A	• Q13 Evaporative Emission Vent Solenoid Valve (LV1/L96/LC8)
58	BCM-2	F58UA	10A	• K9 Body Control Module

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
59	BCM-1	F59UA	10A	• K9 Body Control Module
61	CCV HTR/ENG OIL SOL	F61UA	15A	• E45 Positive Crankcase Ventilation Heater (LWN) • Q44 Engine Oil Pressure Control Solenoid Valve (LV1)
62	O2 SNSR 2 (POST)/EV FAN	F62UA	10A	• B52D Heated Oxygen Sensor - Bank 1 Sensor 2 (LV1/L96/LC8) • B52F Heated Oxygen Sensor - Bank 2 Sensor 2 (LV1/L96/LC8)
63	SPARE	F63UA	10A	• Not Used
64	MAF/CNSTR VENT/HUMIDITY SENSOR	F64UA	15A	• B75C Multifunction Intake Air Sensor • Q12 Evaporative Emission Purge Solenoid Valve (LV1/L96/LC8)
65	ODD IGN/INJ	F65UA	20A	• K20 Engine Control Module (LV1) • Q17A Fuel Injector 1 (L96/LC8) • Q17C Fuel Injector 3 (L96/LC8) • Q17E Fuel Injector 5 (L96/LC8) • Q17G Fuel Injector 7 (L96/LC8) • T8A Ignition Coil 1 (LV1/L96/LC8) • T8C Ignition Coil 3 (LV1/L96/LC8) • T8E Ignition Coil 5 (LV1/L96/LC8) • T8G Ignition Coil 7 (L96/LC8)
66	DRL2 (LOLVL-V22)	F66UA	10A	• E13L Headlamp - Left (Without V22)
67	DRL1 (UPLVL +V22)	F67UA	15A	• E4G Headlamp - Left Low Beam (V22)
68	AUX STOP LAMP(S)	F68UA	15A	• X405 (Cutaway)
69	PWR EXT TRAILER	F69UA	10A	• W8 Blunt Cut - Trailer Provision (UY7)
70	UPFTR STOP LAMP(S)	F70UA	10A	• W25 Blunt Cut - Configurable Provision
71	FUEL HTR/FLEX FUEL SNSR	F71UA	15A	• B198 Fuel Composition Sensor (L96)
72	BCM-6	F72UA	10A	• K9 Body Control Module
73	LTR/DLC	F73UA	20A	• E32 Cigarette Lighter Receptacle (DT4) • X80A Accessory Power Receptacle - Center Console 1 (Without DT4) • X84 Data Link Connector
75	ECM	F75UA	15A	• K20 Engine Control Module (LWN)
76	SOOT SNSR	F76UA	10A	• Not Used
77	O2 SNSR 1 (PRE)/CLS	F77UA	10A	• B52C Heated Oxygen Sensor - Bank 1 Sensor 1 (LV1/L96/LC8) • B52E Heated Oxygen Sensor - Bank 2 Sensor 1 (LV1/L96/LC8) • K20 Engine Control Module (LWN)
78	ECM PWR/TRN	F78UA	10A	• K20 Engine Control Module (L96/LC8)

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
79	EVEN IGN/INJ	F79UA	20A	• Q17B Fuel Injector 2 (L96/LC8) • Q17D Fuel Injector 4 (L96/LC8) • Q17F Fuel Injector 6 (L96/LC8) • Q17H Fuel Injector 8 (L96/LC8) • T8B Ignition Coil 2 (LV1/L96/LC8) • T8D Ignition Coil 4 (LV1/L96/LC8) • T8F Ignition Coil 6 (LV1/L96/LC8) • T8H Ignition Coil 8 (L96/LC8)
J-Case Fuses				
1	ABS MTR	F1UA	50A	• K17 Electronic Brake Control Module
2	ABS MDL	F2UA	40A	• K17 Electronic Brake Control Module
41	TCM BATT	F41UA	20A	• K71 Transmission Control Module (M5U)
42	TRLR WRG	F42UA	30A	• X88 Trailer Connector (UY7)
44	STRTR SOL	F44UA	40A	• M64 Starter Motor
45	ECM PWR/TRN	F45UA	30A	• K20 Engine Control Module (LV1/LWN)
46	SPARE	F46UA	30A	• Not Used (Without KI4)
46	AC/DC INV	F46UA	25A	• T1 Accessory DC/AC Power Iverter Module (KI4)
47	FAN LO	F47UA	40A	• Not Used
74	FRT BLWR	F74UA	40A	• R3 Blower Motor Resistor
Relays				
15	RUN/CRNK	KR93 Ignition Run/ Crank Relay	—	• A10 Inside Rearview Mirror (UVC) • B87 Rearview Camera (UVC) • E11A Fuel Heater/Water in Fuel Sensor (LWN) • K20 Engine Control Module • K36 Inflatable Restraint Sensing and Diagnostic Module • K38 Chassis Control Module (LV1/L96/LC8) • K71 Transmission Control Module (M5U) • P16 Instrument Cluster • S40 Passenger Air Bag Disable Switch (C99) • T12 Automatic Transmission Assembly (MYD)
37	NOX SENSOR	KR121B Reductant Control Module Relay 2	—	• B136 Exhaust Particulate Matter Sensor (LWN) • B195A Nitrogen Oxides Sensor 1 (LWN) • B195B Nitrogen Oxides Sensor 2 (LWN)
38	FUEL PUMP	KR23A Fuel Pump Relay	—	• A7 Fuel Pump and Level Sensor Assembly (LWN)
39	CRNK	KR27 Starter Relay	—	• M64 Starter Motor
40	A/C CMPRSR	KR29 A/C Compressor Clutch Relay	—	• Q2 A/C Compressor Clutch
48	EV FAN CLUTCH	KR20F Cooling Fan Relay	—	• Q85 Cooling Fan Clutch (LWN)

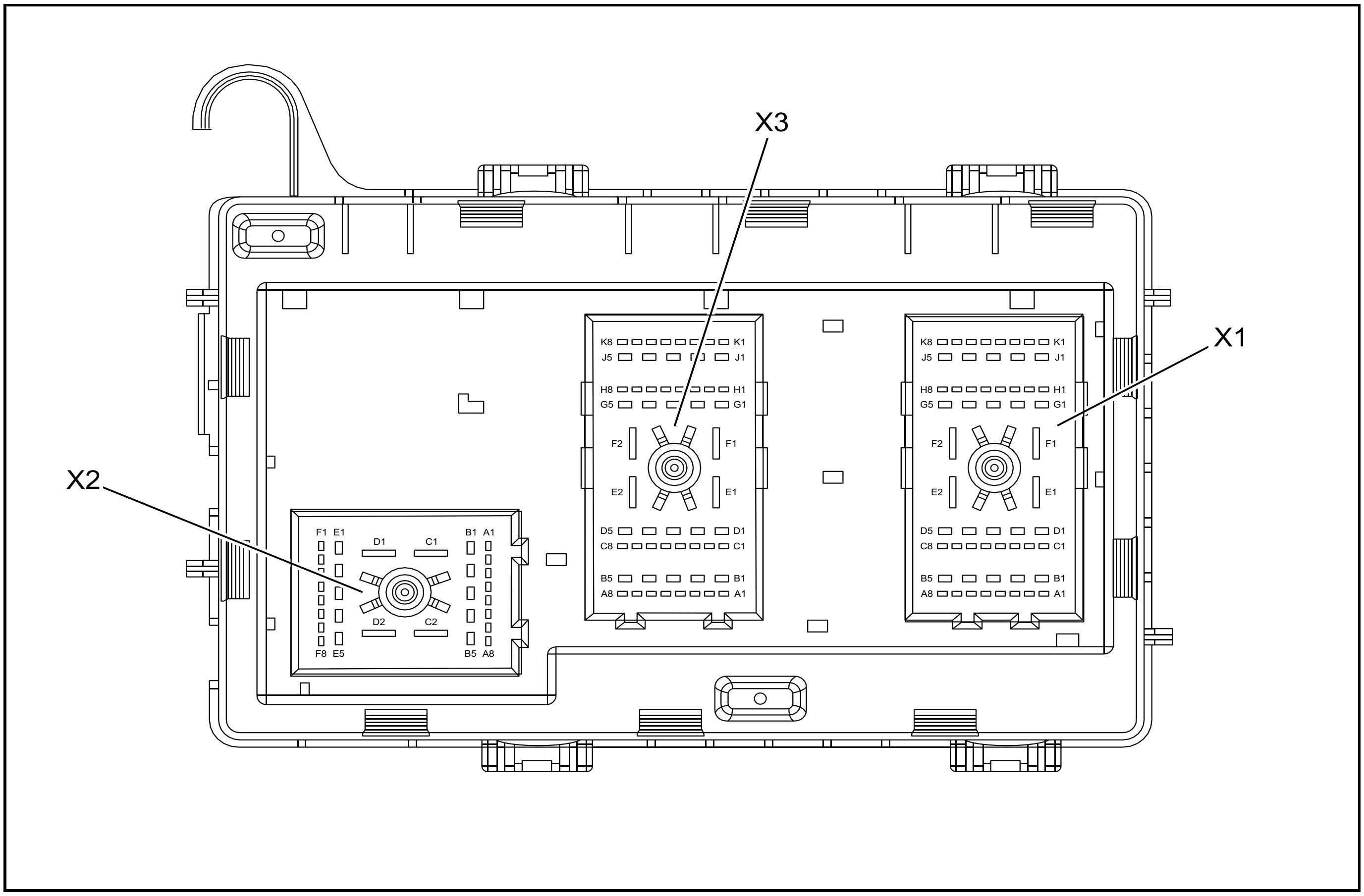
Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
49	PWR/TRN	KR75 Engine Controls Ignition Relay	—	• B52C Heated Oxygen Sensor - Bank 1 Sensor 1 (LV1/L96/LC8) • B52D Heated Oxygen Sensor - Bank 1 Sensor 2 (LV1/L96/LC8) • B52E Heated Oxygen Sensor - Bank 2 Sensor 1 (LV1/L96/LC8) • B52F Heated Oxygen Sensor - Bank 2 Sensor 2 (LV1/L96/LC8) • B75C Multifunction Intake Air Sensor • B198 Fuel Composition Sensor (L96) • E45 Positive Crankcase Ventilation Heater (LWN) • K20 Engine Control Module • Q12 Evaporative Emission Purge Solenoid Valve (LV1/L96/LC8) • Q17A Fuel Injector 1 (L96/LC8) • Q17B Fuel Injector 2 (L96/LC8) • Q17C Fuel Injector 3 (L96/LC8) • Q17D Fuel Injector 4 (L96/LC8) • Q17E Fuel Injector 5 (L96/LC8) • Q17F Fuel Injector 6 (L96/LC8) • Q17G Fuel Injector 7 (L96/LC8) • Q17H Fuel Injector 8 (L96/LC8) • Q44 Engine Oil Pressure Control Solenoid Valve (LV1) • T8A Ignition Coil 1 (LV1/L96/LC8) • T8B Ignition Coil 2 (LV1/L96/LC8) • T8C Ignition Coil 3 (LV1/L96/LC8) • T8D Ignition Coil 4 (LV1/L96/LC8) • T8E Ignition Coil 5 (LV1/L96/LC8) • T8F Ignition Coil 6 (LV1/L96/LC8) • T8G Ignition Coil 7 (L96/LC8) • T8H Ignition Coil 8 (L96/LC8)
50	SPARE	KR150 Relay - Spare	—	• Not Used
57	FAN LO	KR20C Cooling Fan Low Speed Relay	—	• Not Used
60	FAN CNTRL	KR20E Cooling Fan Speed Control Relay	—	• Not Used
Important: Relays listed below are non-serviceable Printed Circuit Board (PCB) relays and are internal to the block.				
K3	WPR HI	KR12C Windshield Wiper Speed Control Relay	—	• M75 Windshield Wiper Motor
K5	HORN/WASH	KR3 Horn Relay, KR11 Windshield Washer Pump Relay	—	• P13 Horn Assembly • G24 Windshield Washer Pump
K6	LO BEAM	KR49 Headlamp Low Beam Relay	—	• E4G Headlamp - Left Low Beam (V22) • E4H Headlamp - Right Low Beam (V22) • E13L Headlamp - Left (Without V22) • E13R Headlamp - Right (Without V22)
K7	HI BEAM	KR48 Headlamp High Beam Relay	—	• E4E Headlamp - Left High Beam (V22) • E4F Headlamp - Right High Beam (V22) • E13L Headlamp - Left (Without V22) • E13R Headlamp - Right (Without V22)

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
K9	TRLR LT STOP/ TRN	KR63L Trailer Stop/Turn Signal Lamp Relay - Left	—	• X88 Trailer Connector • X405 (Cutaway)
K11	STOP LAMP(S)	KR59 Stop Lamp Relay	—	• W8 Blunt Cut - Trailer Provision • W25 Blunt Cut - Configurable Provision • X405 (Cutaway)
K13	WPR	KR12B Windshield Wiper Relay	—	• KR12C Windshield Wiper Speed Control Relay • M75 Windshield Wiper Motor
K18	TRLR RT STOP/ TRN	KR63R Trailer Stop/Turn Signal Lamp Relay - Right	—	• X88 Trailer Connector • X405 (Cutaway)
K19	DRL	KR42 Daytime Running Lamps Relay	—	• F66UA (Without V22) • F67UA (V22)

X50A Fuse Block - Underhood Bottom View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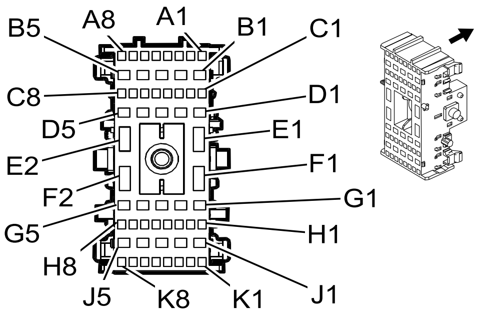
X50A Fuse Block - Underhood X1



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Connector Part Information

- Harness Type: Engine
- OEM Connector: 15477823
- Service Connector: 13574911
- Description: 56-Way F 150, 280 GT Metri-Pack Series (L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575479	J-35616-14 (GN)	J-38125-553	12191812	Delphi 19	E	C
II	13575718	J-35616-44 (YE)	J-38125-558	12110127	Delphi 19	F	G
III	13575735	J-35616-14 (GN)	J-38125-553	12191812	Delphi 19	C	A
IV	13575735	J-35616-14 (GN)	J-38125-553	12191812	Delphi 19	E	C
V	13575753	J-35616-4A (PU)	J-38125-553	15304711	Delphi 8	2	A
VI	13575753	J-35616-4A (PU)	J-38125-553	15304711	Delphi 8	E	A
VII	19367554	J-35616-44 (YE)	J-38125-558	12110127	Delphi 19	F	G
VIII	Not Available	No Tool Required	Not Available	Not Required	Not Required	Not Required	Not Required

X50A Fuse Block - Underhood X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.5 0.5	RD/WH RD/BN	440 440	Battery Positive Voltage Battery Positive Voltage	IV IV	L96/LC8/LV1 LWN
A2	0.75 0.35	RD/WH RD/WH	440 1840	Battery Positive Voltage Battery Positive Voltage	VIII I	LV1 MYD
A3 - A8	—	—	—	Not Occupied	—	—
B1	0.5	RD/WH	840	Battery Positive Voltage	VI	—
B2	0.5 0.5	BN/L-GN D-GN	59 59	A/C Compressor Clutch Control A/C Compressor Clutch Control	VI VI	C60+LWN C60-LWN
B3	—	—	—	Not Occupied	—	—
B4	0.8	D-GN	29	Horn Control	V	—

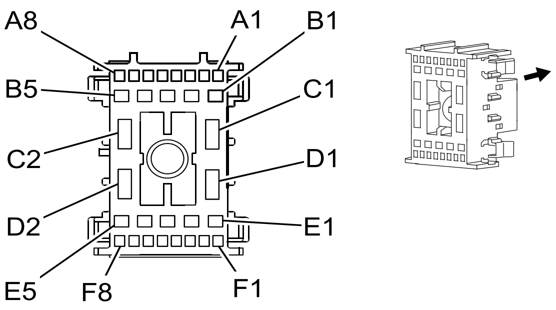
X50A Fuse Block - Underhood X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
B5	0.5	VT/L-GN	439	Run/Crank Ignition 1 Voltage	VI	—
C1	—	—	—	Not Occupied	—	—
C2	0.5 0.5	D-GN/WH WH/GY	459 459	A/C Compressor Clutch Relay Control A/C Compressor Clutch Relay Control	IV IV	LC8/LWN/L96 LV1
C3 - C5	—	—	—	Not Occupied	—	—
C6	0.5	YE/BK	625	Starter Enable Relay Control	IV	—
C7	1	BK	1250	Ground	III	—
C8	0.5	L-GN/GY	465	Fuel Pump Primary Relay Control	IV	—
D1	0.75 0.75	RD/WH RD/L-GN	1840 1840	Battery Positive Voltage Battery Positive Voltage	V V	LV1 LWN
D2	—	—	—	Not Occupied	—	—
D3	0.5 0.5	VT/BK PK	2139 2139	Run/Crank Ignition 1 Voltage Run/Crank Ignition 1 Voltage	VI VI	M5U MYD
D4	0.75	BK	550	Ground	V	—
D5	—	—	—	Not Occupied	—	—
E1	5 4	PU YE	6 6	Starter Solenoid Crank Ignition Voltage Starter Solenoid Crank Ignition Voltage	VII VII	LC8/LWN/L96 LV1
E2	—	—	—	Not Occupied	—	—
F1	2.5	VT/GY	1439	Run/Crank Ignition 1 Voltage	II	—
F2	5	RD/BK	542	Battery Positive Voltage	VII	—
G1	1 0.75	PK VT/GY	1039 1039	Run/Crank Ignition 1 Voltage Run/Crank Ignition 1 Voltage	V V	LC8/L96 LV1
G2	0.8	PK	1039	Run/Crank Ignition 1 Voltage	V	—
G3	0.8	PK	1039	Run/Crank Ignition 1 Voltage	V	—
G4	0.75	VT/WH	1939	Run/Crank Ignition 1 Voltage	V	—
G5	0.5 0.5	PK VT/WH	1939 1939	Run/Crank Ignition 1 Voltage Run/Crank Ignition 1 Voltage	VI VI	LC8/L96 LV1
H1	—	—	—	Not Occupied	—	—
H2	0.8	PK	1339	Run/Crank Ignition 1 Voltage	III	—
H3 - H4	—	—	—	Not Occupied	—	—
H5	0.5	WH/BK	2366	Cooling Fan Control Relay Speed Signal	IV	—
H6	0.5	WH	2368	Cooling Fan Control Signal	IV	—
H7 - H8	—	—	—	Not Occupied	—	—
J1	1 0.75	PK VT/BK	1239 1239	Run/Crank Ignition 1 Voltage Run/Crank Ignition 1 Voltage	V V	LC8/L96 LV1
J2	0.8	PK	1239	Run/Crank Ignition 1 Voltage	V	—
J3	0.8	PK	1239	Run/Crank Ignition 1 Voltage	V	—
J4	0.5	VT/D-BU	5292	Powertrain Main Relay Fused Supply 3	VI	—
J5	0.5	VT/D-BU	5293	Powertrain Main Relay Fused Supply 4	VI	—
K1	1 0.5 0.5	PK VT/GY VT/D-BU	539 539 5291	Run/Crank Ignition 1 Voltage Run/Crank Ignition 1 Voltage Powertrain Main Relay Fused Supply 2	III IV IV	LC8/L96 LV1 LWN
K2 - K3	—	—	—	Not Occupied	—	—
K4	1 0.5	PK VT/WH	1539 1539	Run/Crank Ignition 1 Voltage Run/Crank Ignition 1 Voltage	III IV	LC8/L96 LV1
K5 - K7	—	—	—	Not Occupied	—	—

X50A Fuse Block - Underhood X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
K8	0.5	YE	5991	Powertrain Relay Coil Control	IV	—

X50A Fuse Block - Underhood X2



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Connector Part Information

- Harness Type: Chassis
- OEM Connector: 13567518
- Service Connector: 19180280
- Description: 30-Way F 150, 280 GT Metri-Pack 800 Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575718	J-35616-44 (YE)	J-38125-558	12110127	Delphi 19	F	G
II	13575790	J-35616-2A (GY)	J-38125-553	15496302	Delphi 5	2	A
III	13575790	J-35616-2A (GY)	J-38125-553	15496302	Delphi 5	E	A
IV	19303704	J-35616-35 (VT)	J-38125-553	13525970	Delphi 4	2	A
V	19303704	J-35616-4A (PU)	J-38125-553	13525970	Delphi 4	2	A
VI	19303708	J-35616-35 (VT)	J-38125-553	13525969	Delphi 4	4	4
VII	19303708	J-35616-35 (VT)	J-38125-553	13525969	Delphi 4	F	D
VIII	19366953	J-35616-44 (YE)	J-38125-558	12110127	Delphi 19	F	G
IX	19367554	J-35616-44 (YE)	J-38125-558	12110127	Delphi 19	F	G
X	Not Available	No Tool Required	J-38125-215A	Not Available	Not Available	Not Available	Not Available

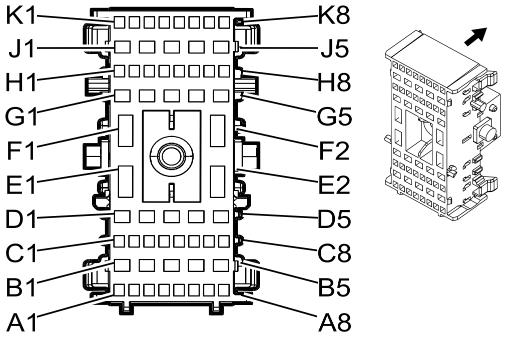
X50A Fuse Block - Underhood X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	—	—	—	Not Occupied	—	—
A2	1	YE	618	Left Rear Turn Signal Lamp Control	II	—
A3	0.8	D-BU/WH	149	Courtesy Lamp Control	II	—
A4	1	GN	619	Right Rear Turn Signal Lamp Control	II	—
A5	—	—	—	Not Occupied	—	—
A6	0.5	RD/WH	4042	Battery Positive Voltage	III	—

X50A Fuse Block - Underhood X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A7	1	BN	2109	Trailer Park Lamp Control	II	—
A8	0.5 0.75	VT/GY VT/GY	2739 2739	Run/Crank Ignition 1 Voltage Run/Crank Ignition 1 Voltage	III II	LWN -LWN
B1	2.5	GY	120	Fuel Pump Control	VII	—
B2	—	VT/D-BU	5294	Powertrain Main Relay Fused Supply 5	X	—
B3	1	GY	3672	NOx Sensor 2 Control	IV	—
B4	2	RD/WH	1740	Battery Positive Voltage	VI	—
B5	1	D-GN/	1619	Right Rear Trailer Stop/Turn Lamp Control	IV	—
C1	—	—	—	Not Occupied	—	—
C2	2.5	RD/VT	1640	Battery Positive Voltage	I	—
D1	3	RD/BK	742	Battery Positive Voltage	VIII	—
D2	5	RD/YE	442	Battery Positive Voltage	IX	—
E1	—	—	—	Not Occupied	—	—
E2	0.8	L-BU/	1320	CHMSL Control	V	—
E3	3	D-BU/	47	Trailer Auxiliary Control	VII	—
E4	1	YE	1618	Left Rear Trailer Stop/Turn Lamp Control	V	—
E5	3	RD/WH	1940	Battery Positive Voltage	VII	—
F1	1	L-GN/	1624	Trailer Backup Lamp Control	II	—
F2	0.5	RD/L-GN	40	Battery Positive Voltage	III	—
F3	1	BN	2109	Trailer Park Lamp Control	II	—
F4	0.5	L-GN/D-BU	3889	DEF Power Module Relay Control	III	—
F5	0.5	RD/L-GN	2440	Battery Positive Voltage	III	—
F6	0.5	RD/WH	4042	Battery Positive Voltage	III	—
F7	1	D-GN/	619	Right Rear Turn Signal Lamp Control	II	—
F8	1	YE	618	Left Rear Turn Signal Lamp Control	II	—

X50A Fuse Block - Underhood X3



1581655

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15477822
Service Connector: 19115189
Description: 56-Way F 150, 280 GT Metri-Pack 800 Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575479	J-35616-14 (GN)	J-38125-553	12191812	Delphi 19	E	C
II	13575735	J-35616-14 (GN)	J-38125-553	12191812	Delphi 19	C	A
III	13575735	J-35616-14 (GN)	J-38125-553	12191812	Delphi 19	E	C
IV	13575753	J-35616-4A (PU)	J-38125-553	15304711	Delphi 8	2	A
V	13575753	J-35616-4A (PU)	J-38125-553	15304711	Delphi 8	E	A
VI	13575754	J-35616-4A (PU)	J-38125-553	15304713	Delphi 19	4	4
VII	13575756	J-35616-4A (PU)	J-38125-553	15304713	Delphi 19	F	D
VIII	19366953	J-35616-44 (YE)	J-38125-558	12110127	Delphi 19	F	G

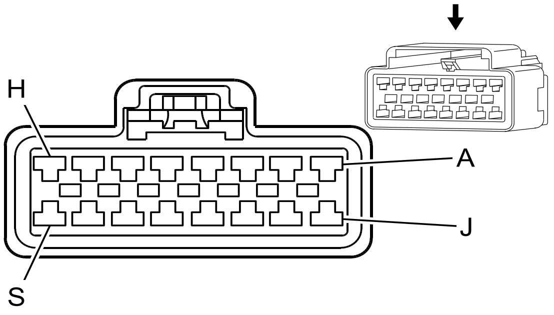
X50A Fuse Block - Underhood X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.35	PK	1639	Run/Crank Ignition 1 Voltage	I	—
A2	0.35	RD/WH	2840	Battery Positive Voltage	I	—
A3	0.8	RD/WH	2240	Battery Positive Voltage	II	—
A4	0.8	RD/WH	3040	Battery Positive Voltage	II	—
A5	0.5	RD/WH	2540	Battery Positive Voltage	III	—
A6	—	—	—	Not Occupied	—	—
A7	0.8	RD/WH	2740	Battery Positive Voltage	II	—
A8	—	—	—	Not Occupied	—	—
B1	3	RD/WH	3940	Battery Positive Voltage	VII	—

X50A Fuse Block - Underhood X3 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
B2	0.35	PK	1139	Run/Crank Ignition 1 Voltage	V	—
B3	0.35	PK	1139	Run/Crank Ignition 1 Voltage	V	—
B4	1	RD/WH	1040	Battery Positive Voltage	IV	—
B5	1	BN	2109	Trailer Park Lamp Control	IV	—
C1	0.5	PK	239	Run/Crank Ignition 1 Voltage	III	—
C2 - C3	—	—	—	Not Occupied	—	—
C4	0.35	OG	5186	Left Trailer Turn Signal Lamp Control	I	—
C5	1	BN	2109	Trailer Park Lamp Control	II	—
C6	1	D-GN	619	Right Rear Turn Signal Lamp Control	II	—
C7	0.8	D-BU/WH	149	Courtesy Lamp Control	II	—
C8	1	YE	618	Left Rear Turn Signal Lamp Control	II	—
D1	0.5	OG	228	Windshield Washer Pump Control	V	—
D2	0.35	YE	5199	Run/Crank Relay Coil Control	V	—
D3	1	L-GN	1624	Trailer Backup Lamp Control	IV	—
D4	3	D-BU/	47	Trailer Auxiliary Control	VII	—
D5 - E1	—	—	—	Not Occupied	—	—
E2	3	RD/WH	4140	Battery Positive Voltage	VIII	—
F1 - F2	—	—	—	Not Occupied	—	—
G1	0.8	RD/WH	640	Battery Positive Voltage	IV	—
G2	0.35	OG	2268	Windshield Washer Relay Control	V	—
G3	0.35	YE	5187	Right Trailer Turn Signal Lamp Control	V	—
G4	2	PU/	92	Windshield Wiper Motor High Speed Control	VI	—
G5	2	D-GN	95	Windshield Wiper Motor Low Speed Control	VI	—
H1	—	—	—	Not Occupied	—	—
H2	1	RD/WH	3840	Battery Positive Voltage	II	—
H3	0.35	TN	28	Horn Relay Control	III	—
H4	0.35	PK/WH	1970	Headlamp Low Beam Relay Control	I	—
H5	0.35	PU/	544	DRL Relay Control	I	—
H6	0.35	GY	91	Windshield Wiper Motor Relay Coil Control	I	—
H7	0.5	WH	5065	Stop Lamp Relay Coil Control	III	—
H8	0.35	TN	860	Front Windshield Wiper Switch High Signal	I	—
J1	1	RD/WH	640	Battery Positive Voltage	IV	—
J2	0.8	RD/WH	2940	Battery Positive Voltage	IV	—
J3	0.8	BN	2309	Front Park Lamp Control	IV	—
J4	0.8	D-BU/WH	1315	Right Front Turn Signal Lamp Control	IV	—
J5 - K2	—	—	—	Not Occupied	—	—
K3	0.8	RD/WH	2140	Battery Positive Voltage	II	—
K4	0.5	L-BU	20	Stop Lamp Control	III	—
K5	0.5	L-BU/WH	6311	Cruise/ETC/TCC Brake Signal	III	—
K6	—	—	—	Not Occupied	—	—
K7	0.8	L-BU/WH	1314	Left Front Turn Signal Lamp Control	II	—
K8	0.35	TN/WH	1969	Headlamp High Beam Relay Control	I	—

X50A Fuse Block - Underhood X4



823321

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 15326952
Service Connector: 15306426
Description: 16-Way F 280 GT Series (BK)

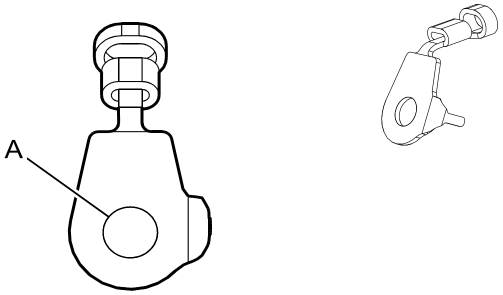
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575753	J-35616-4A (PU)	J-38125-553	15304711	Delphi 8	2	A
II	13575753	J-35616-4A (PU)	J-38125-553	15304711	Delphi 8	E	A

X50A Fuse Block - Underhood X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	—	—	Not Occupied	—	—
B	0.5	GY/BN	2309	Front Park Lamp Control	II	—
C	0.5	GY/BN	2309	Front Park Lamp Control	II	—
D	0.75	L-GN/VT	1315	Right Front Turn Signal Lamp Control	I	—
E	0.75	D-BU/WH	1314	Left Front Turn Signal Lamp Control	I	—
F	0.8	YE	712	Left Headlamp Low Beam Control	I	—
G - J	—	—	—	Not Occupied	—	—
K	0.5	YE	712	Left Headlamp Low Beam Control	II	—
L	0.35	YE	712	Left Headlamp Low Beam Control	II	—
M	0.75	WH	311	Right Headlamp High Beam Control	I	—
N	0.75	WH	711	Left Headlamp High Beam Control	I	—
P	0.75	YE	312	Right Headlamp Low Beam Control	I	—
R - S	—	—	—	Not Occupied	—	—

X50A Fuse Block - Underhood X5



4831180

Connector Part Information

Harness Type: Positive Battery Cable
OEM Connector: 12160208
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

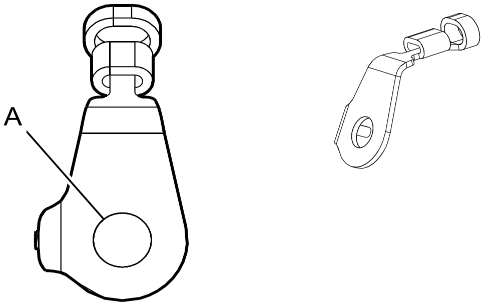
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

X50A Fuse Block - Underhood X5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	19	RD	1	Unfused Battery Positive Voltage	I	—

X50A Fuse Block - Underhood X6



4831192

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13595106
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

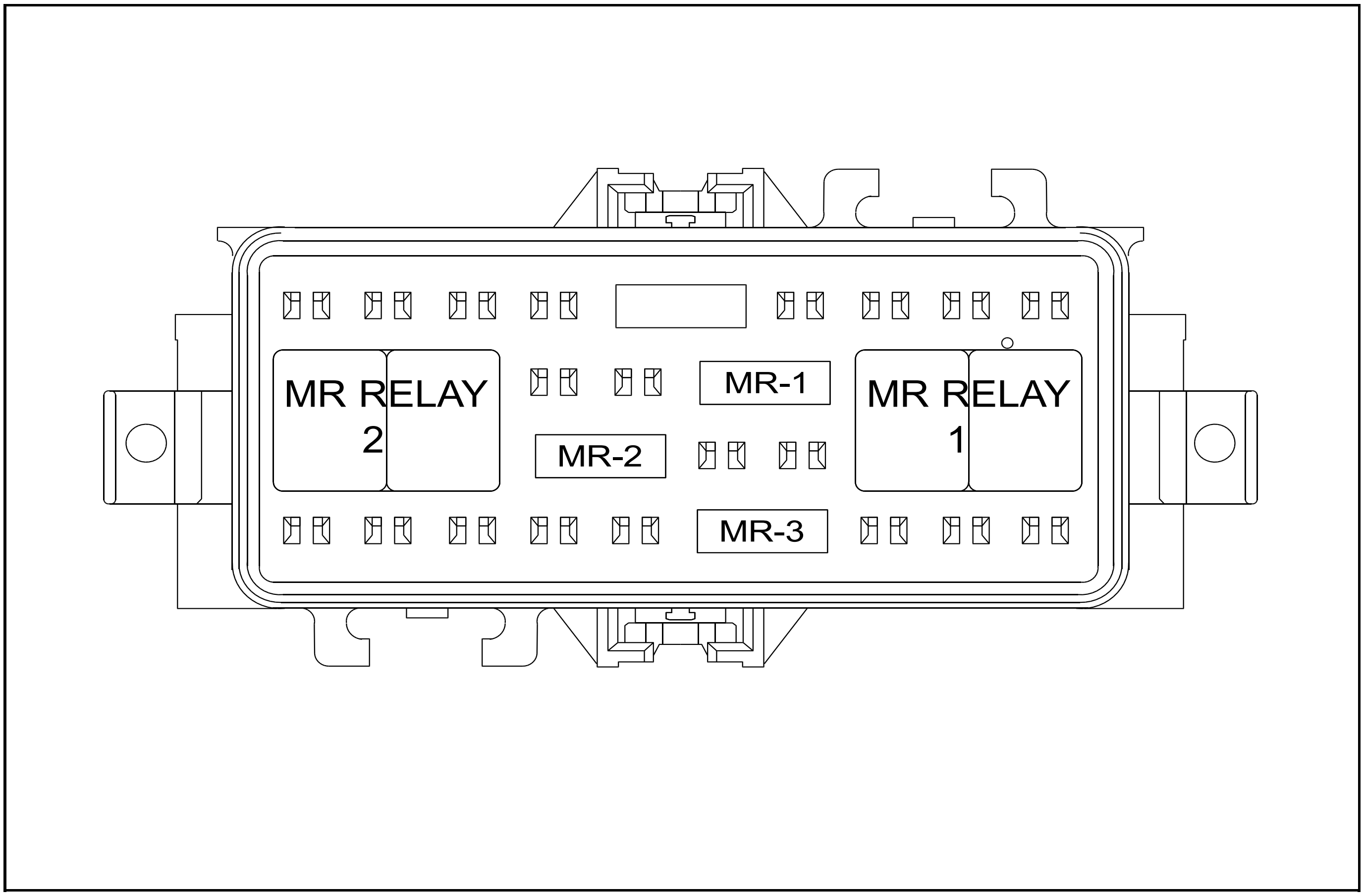
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

X50A Fuse Block - Underhood X6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	19	RD	842	Battery Positive Voltage	I	—

X50B Fuse Block - Underhood Auxiliary Top View

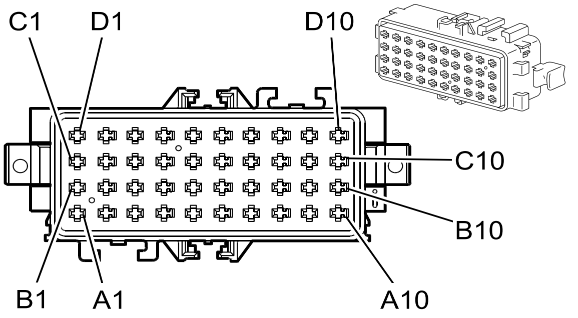


4845612

Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Fuses				
F1	MR-2	F1UB	30A	• KR161B Configurable Provision Relay 2 (9L7)
F2	MR-1	F2UB	30A	• KR161A Configurable Provision Relay 1 (9L7)
F3	MR-3	F3UB	10A	• W25 Blunt Cut - Configurable Provision (9L7)
Relays				
R1	MR RELAY 1	KR90 Door Unlock Relay (WRF), KR161B Configurable Provision Relay 2 (9L7)	—	• S13D Door Lock Switch - Driver (WRF) • W25 Blunt Cut - Configurable Provision
R2	MR RELAY 2	KR97 Door Lock Relay (WRF), KR161A Configurable Provision Relay 1 (9L7)	—	• S13D Door Lock Switch - Driver (WRF) • W25 Blunt Cut - Configurable Provision

X50B Fuse Block - Underhood Auxiliary (9L7)



2002692

Connector Part Information

Harness Type: Accessory
OEM Connector: 13607200
Service Connector: Service by Harness - See Part Catalog
Description: 40-Way F 2.8 MCP Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

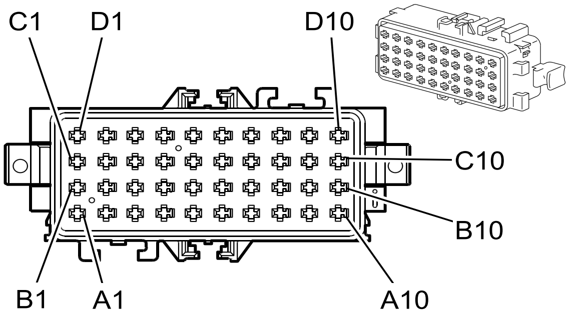
X50B Fuse Block - Underhood Auxiliary (9L7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1 - A5	—	—	—	Not Occupied	—	—
A6	1	RD/BK	102	Battery Positive Voltage	I	—
A7	1	RD/WH	5440	Battery Positive Voltage	I	—
A8 - A10	—	—	—	Not Occupied	—	—
B1	2.5	RD/WH	5440	Battery Positive Voltage	I	—
B2	—	—	—	Not Occupied	—	—
B3	0.5	D-BU/	6843	Auxiliary Device Relay 2 Control	I	—
B4	2.5	RD/BK	102	Battery Positive Voltage	I	—
B5	2.5	RD/WH	5440	Battery Positive Voltage	I	—
B6 - B7	—	—	—	Not Occupied	—	—
B8	2.5	RD/WH	5440	Battery Positive Voltage	I	—
B9	—	—	—	Not Occupied	—	—
B10	0.5	L-BU	6842	Auxiliary Device Relay 1 Control	I	—
C1	0.5	BK	1850	Ground	I	—
C2	—	—	—	Not Occupied	—	—
C3	2.5	D-GN	6840	Auxiliary Device 2 Switched Voltage	I	—
C4 - C5	—	—	—	Not Occupied	—	—
C6	2.5	RD/BK	102	Battery Positive Voltage	I	—
C7	2.5	RD/WH	5440	Battery Positive Voltage	I	—
C8	0.5	BK	1551	Signal Ground	I	—
C9	—	—	—	Not Occupied	—	—

X50B Fuse Block - Underhood Auxiliary (9L7) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
C10	2.5	L-GN	6839	Auxiliary Device 1 Switched Voltage	I	—
D1 - D10	—	—	—	Not Occupied	—	—

X50B Fuse Block - Underhood Auxiliary (WRF)



2002692

Connector Part Information

Harness Type: Body
OEM Connector: 13607200
Service Connector: Service by Component - See Part Catalog
Description: 40-Way F 2.8 MCP Series, Sealed (BK)

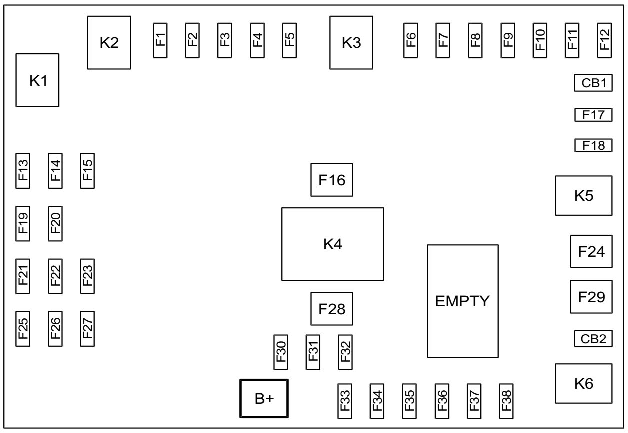
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19300440	J-35616-4A (PU)	J-38125-557	Not Required	Not Required	Not Required	Not Required

X50B Fuse Block - Underhood Auxiliary (WRF)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1 - A10	—	—	—	Not Occupied	—	—
B1	0.5	BK	450	Ground	I	—
B2	—	—	—	Not Occupied	—	—
B3	0.5	D-BU/YE	6843	Auxiliary Device Relay 2 Control	I	—
B4 - B7	—	—	—	Not Occupied	—	—
B8	0.5	BK	450	Ground	I	—
B9	—	—	—	Not Occupied	—	—
B10	0.5	BN	6842	Auxiliary Device Relay 1 Control	I	—
C1	0.5	RD/VT	102	Battery Positive Voltage	I	—
C2	—	—	—	Not Occupied	—	—
C3	0.5	BN/YE	780	Driver Door Lock Switch Lock Signal	I	—
C4 - C7	—	—	—	Not Occupied	—	—
C8	0.5	RD/VT	102	Battery Positive Voltage	I	—
C9	—	—	—	Not Occupied	—	—
C10	0.5	BN/WH	781	Driver Door Lock Switch Unlock Signal	I	—
D1 - D10	—	—	—	Not Occupied	—	—

X52A Fuse Block - Passenger Compartment Label


K2
F1
F2
F3
F4
F5
K3
F6
F7
F8
F9
F10
F11
F12
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CB1
F17
F18
F13
F14
F15
F16
K5
F19
F20
K4
F24
F21
F22
F23
EMPTY
F29
F28
F25
F26
F27
CB2
F30
F31
F32
K6
B+
F33
F34
F35
F36
F37
F38

MINIFUSES

F1	15A	EMPTY
F2	2A	STR/WHL/SNSR
F3	15A	AUX PRK LAMP(S) (CUTAWAY)
F4	10A	FTR PRK LAMP(S)
F5	15A	TRLR PRK LAMP(S)
F6	10A	UPFTR PRK LAMP(S)
F7	10A	RT REAR PRK LAMP
F8	10A	LT REAR PARK LAMP
F9	5A	OSRVM SW
F10	10A	AIRBAG/AOS
F11	10A	ONSTAR
F12	15A	EMPTY
F13	10A	HVAC2
F14	20A	HVAC1
F15	15A	EMPTY
F17	20A	OSRVM HTR
F18	30A	REAR DEFOG
F19	10A	CMPS
F20	15A	RDO/CHIME
F21	10A	RFA/TPM
F22	2A	IGN SW (DLIS)/PK3
F23	10A	I/P CLUSTER
F25	10A	HVAC CNTRL
F26	10A	AUX/TRLR BCK/UP
F27	10A	TAIL LAMP(S) BCK/UP
F30	15A	UPFTR CTSY LAMP(S)
F31	15A	FRT DR LCK
F32	15A	REAR DR LCK
F33	15A	CARGO DR UNLCK
F34	15A	FRT PASS DR UNLCK
F35	15A	REAR PASS DR UNLCK
F36	15A	DVR DR UNLCK
F37	15A	EMPTY
F38	15A	EMPTY

J-CASE FUSES

F16	50A	UPFITTER AUX1
F16	25A	GAS AMBULANCE
F24	30A	EMPTY
F28	50A	UPFITTER AUX2
F28	20A	READING LAMP(S)
F28	25A	GAS AMBULANCE
F29	30A	REAR BLOWER

CIRCUIT BOARD RELAYS (NOT SHOWN)

K7	BCK/UP
K8	UPFTR CTSY LAMP(S)
K9A	FTR REAR PASS DR UNLCK
K9B	DRVR DR UNLCK
K10A	FTR REAR DR LCK
K10B	CARGO DR UNLCK

CIRCUIT BREAKERS

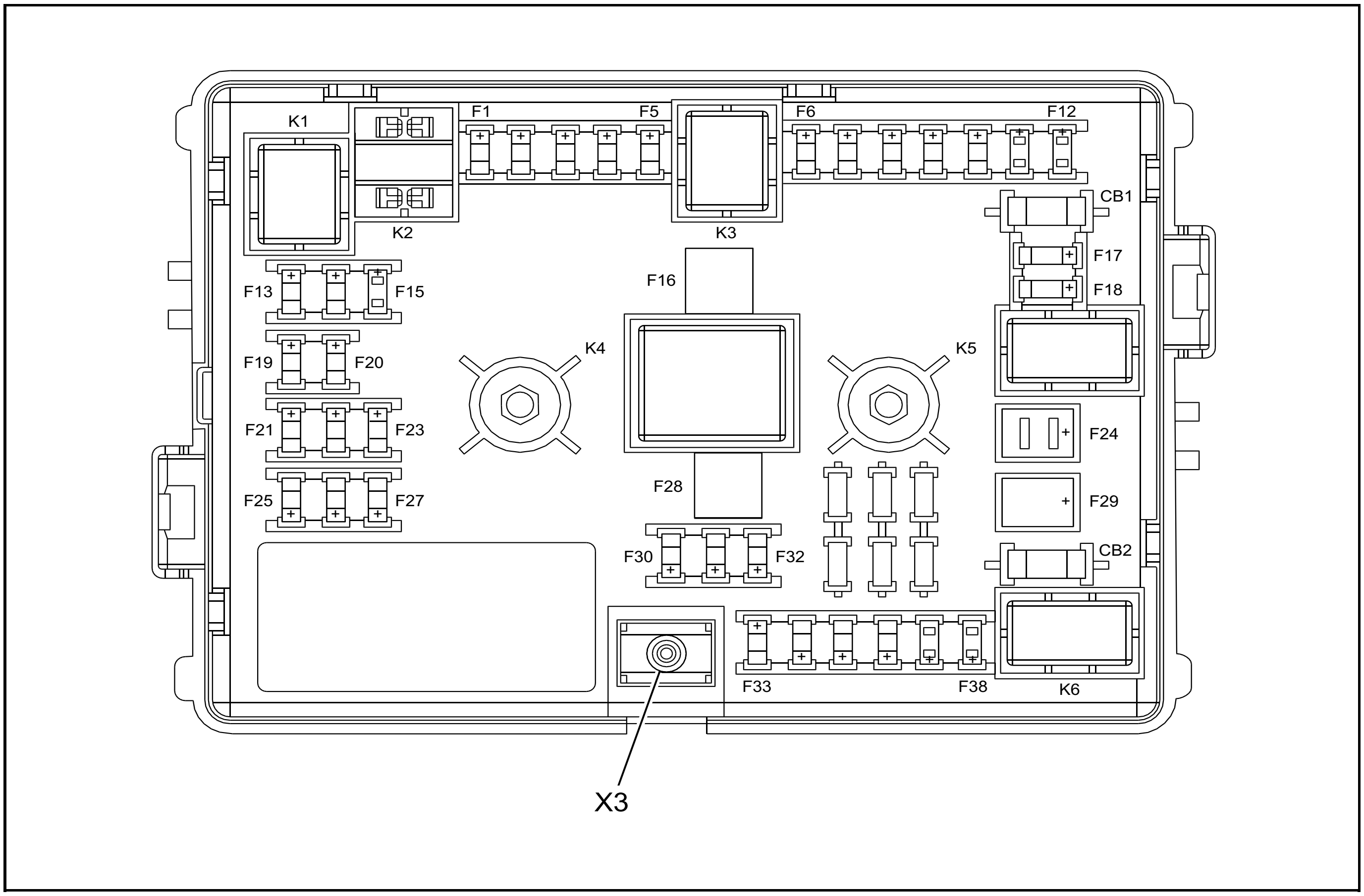
CB1	25A	PWR SEATS
CB2	25A	PWR WINDOW(S)

PLUG IN RELAYS

K1	(HC MICRO) RUN
K2	(HCM MICRO) EMPTY
K3	PRK LAMP(S)
K4	(HC MINI) UPFTR AUX2
K5	(HC MICRO) REAR DEFOG
K6	(HC MICRO) RAP

4822912

X52A Fuse Block - Passenger Compartment Top View



3988743

Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Mini Fuses				
F1	EMPTY	F1PA	15A	• Not Used
F2	STR/WHL/SNSR	F2PA	2A	• X85 Steering Wheel Air Bag Coil (K34 or W1Y)
F3	AUX PRK LAMP(S) (CUTAWAY)	F3PA	15A	• X405 (Cutaway)
F4	FRT PRK LAMP(S)	F4PA	10A	• E2LF Side Marker Lamp - Left Front • E2RF Side Marker Lamp - Right Front • E4N Park/Turn Signal Lamp - Left • E4P Park/Turn Signal Lamp - Right
F5	TRLR PRK LAMP(S)	F5PA	15A	• X88 Trailer Connector (UY7)
F6	UPFTR PRK LAMP(S)	F6PA	10A	• X320 (5BV)
F7	RT REAR PRK LAMP	F7PA	10A	• E5T Tail/Stop and Turn Signal Lamp - Right (Cargo or Passenger)
F8	LT REAR PARK LAMP	F8PA	10A	• E5S Tail/Stop and Turn Signal Lamp - Left (Cargo or Passenger) • E7 License Plate Lamp (Cargo or Passenger)
F9	OSRVM SW	F9PA	5A	• KR90 Door Unlock Relay (AU3+WRF) • KR97 Door Lock Relay (AU3+WRF) • S52 Outside Rearview Mirror Switch (DEB or DE5)

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
F10	AIRBAG/AOS	F10PA	10A	• K36 Inflatable Restraint Sensing and Diagnostic Module
F11	ONSTAR	F11PA	10A	• K73 Telematics Communication Interface Control Module (UE1)
F12	FRONT CAM MODULE	F12PA	15A	• B174 Frontview Camera (UFL/UEU)
F13	HVAC2	F13PA	10A	• K33A HVAC Control Module - Auxiliary • KR32B Blower Motor High Speed Relay - Auxiliary (C69/C36/ENC) • KR32C Blower Motor Low Speed Relay - Auxiliary (C69/C36/ENC) • KR32D Blower Motor Medium Speed Relay - Auxiliary (C69/C36/ENC) • KR81 Auxiliary Battery Relay 1 • M6 Air Temperature Door Actuator • M6B Air Temperature Door Actuator - Auxiliary (C69/C36/ENC) • M37B Mode Door Actuator - Auxiliary (C69/C36/ENC) • S34 HVAC Controls Switch Assembly (C49/DE5/C60) • S34F HVAC Controls Switch Assembly - Auxiliary Front • S34R HVAC Controls Switch Assembly - Auxiliary Rear (Rear HVAC Controls)
F14	HVAC1	F14PA	20A	• S34 HVAC Controls Switch Assembly • X81 Accessory Power Receptacle - 110V AC (KI4)
F15	REF LED DISPLAY	F15PA	10A	• P43 Collision Alert Indicators
F17	OSRVM HTR	F17PA	20A	• A9A Outside Rearview Mirror - Driver (DEB or DE5) • A9B Outside Rearview Mirror - Passenger (DEB or DE5)
F18	REAR DEFOG	F18PA	30A	• E18L Rear Defogger Grid - Left (C49) • E18R Rear Defogger Grid - Right (C49)
F19	CMPS	F19PA	10A	• B176 Multi-axis Acceleration Sensor Module • K18 Compass Module (U80)
F20	RDO/CHIME	F20PA	15A	• A11 Radio (Without UL5) • A12 Digital Radio Receiver Control Module (U2K or UBS)
F21	RFA/TPM	F21PA	10A	• K77 Remote Control Door Lock Receiver (ATG or UJM)
F22	IGN SW (DLIS)/PK3	F22PA	2A	• K64 Content Theft Deterrent Control Module • S39 Ignition Switch
F23	I/P CLUSTER	F23PA	10A	• P16 Instrument Cluster (Without 8S8)
F25	HVAC CNTRL	F25PA	10A	• S34 HVAC Controls Switch Assembly (C49 or DE5)
F26	AUX/TRLR BCK/UP	F26PA	10A	• P3 Backup Alarm (8S3) • X88 Trailer Connector • X405 (Cutaway)
F27	TAIL LAMP(S) BCK/UP	F27PA	10A	• E5A Backup Lamp - Left (Cargo or Passenger) • E5B Backup Lamp - Right (Cargo or Passenger)

Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
F30	UPFTR CTSY LAMP(S)	F30PA	15A	• E36AC Dome Lamp - Left Roof Rail (Cargo Without 5BV) • E36AD Dome Lamp - Right Roof Rail (Cargo Without 5BV) • E36AH Dome Lamp (Cargo without 5BV) • E37F Dome/Reading Lamps - Front • E37M Dome/Reading Lamps - Middle (Passenger) • E37R Dome/Reading Lamps - Rear (Passenger without 5BV) • K9 Body Control Module • X320 (5BV) • X405
F31	FRT DR LCK	F31PA	15A	• A23D Door Latch Assembly - Driver (AU3) • A23P Door Latch Assembly - Passenger (AU3)
F32	REAR DR LCK	F32PA	15A	• M13 Door Latch Assembly - Rear Cargo (Passenger or Cargo with AU3) • M14RR Door Lock Actuator - Right Rear (E24 or YA2) • X87RB Sliding Door Jamb Contact Plate - Right Body (E24 or YA2)
F33	CARGO DR UNLCK	F33PA	15A	• M13 Door Latch Assembly - Rear Cargo (Cargo or Passenger with AU3)
F34	FRT PASS DR UNLCK	F34PA	15A	• A23P Door Latch Assembly - Passenger (AU3)
F35	REAR PASS DR UNLCK	F35PA	15A	• KR90A Cargo Door Unlock Relay (AU3) • M14RR Door Lock Actuator - Right Rear (AU3) • X87RB Sliding Door Jamb Contact Plate - Right Body (AU3)
F36	DVR DR UNLCK	F36PA	15A	• A23D Door Latch Assembly - Driver (AU3)
F37	EMPTY	F37PA	15A	• Not Used
F38	EMPTY	F38PA	15A	• Not Used
J-Case Fuses				
F16	UPFITTER AUX1	F16PA	50A	• W12 Blunt Cut - Emergency Vehicle Provision (YF1) • X222 (5BV) • X289 (PRP) • X321 (5BV)
F24	EMPTY	F24PA	30A	• Not Used
F28	UPFITTER AUX2	F28PA	50A	• W12 Blunt Cut - Emergency Vehicle Provision (YF1) • X222 (5BV) • X321 (5BV)
F29	REAR BLOWER	F29PA	30A	• KR32B Blower Motor High Speed Relay - Auxiliary (C36/C69/ENC) • KR32C Blower Motor Low Speed Relay - Auxiliary (C36/C69/ENC) • KR32D Blower Motor Medium Speed Relay - Auxiliary (C36/C69/ENC)
Circuit Breakers				
CB1	PWR SEATS	CB1PA	25A	• S64D Seat Adjuster Switch - Driver (AG1) • S64P Seat Adjuster Switch - Passenger (AG2)
CB2	PWR WINDOW(S)	CB2PA	25A	• S79D Window Switch - Driver (A31) • S79P Window Switch - Passenger (A31)

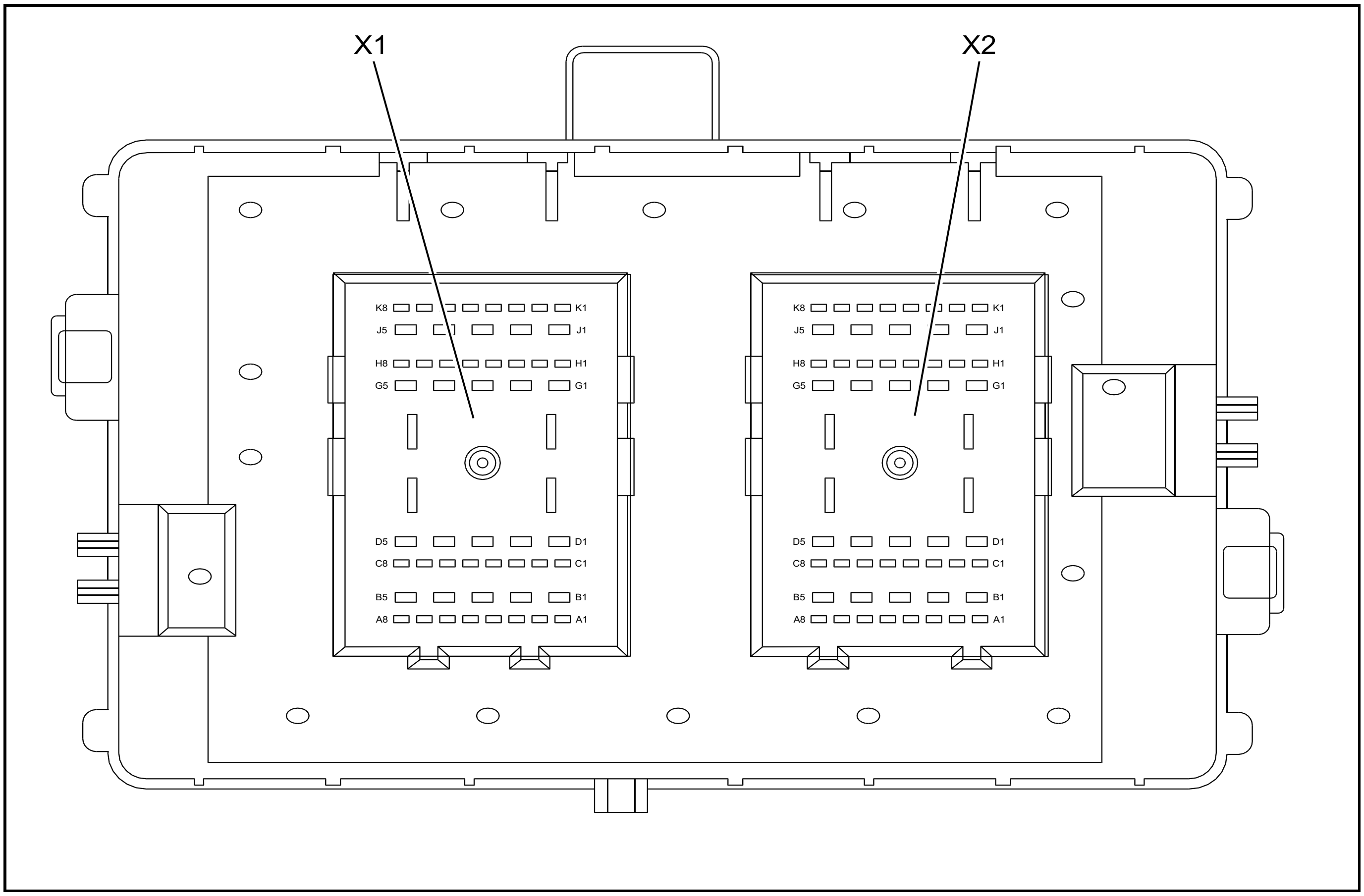
Usage Table (cont'd)

No.	Device Label Name	Device Assigned Name	Rating	Description
Relays				
K1	RUN	KR74 Ignition Run Relay	—	• F13PA • F14PA • F15PA • F19PA • KR77 Ignition Power Provision Relay
K2	EMPTY	KR150 Relay - Spare	—	• Not Used
K3	PRK LAMP(S)	KR53 Park Lamps Relay	—	• F3PA • F4PA • F5PA • F6PA • F7PA • F8PA
K4	UPFTR AUX2	KR77 Ignition Power Provision Relay	—	• W12 Blunt Cut - Emergency Vehicle Provision (YF1) • X222 (5BV) • X321 (5BV)
K5	REAR DEFOG	KR5 Rear Defogger Relay	—	• A9A Outside Rearview Mirror - Driver (DEB/DE5) • A9B Outside Rearview Mirror - Passenger (DEB/DE5) • E18L Rear Defogger Grid - Left (C49) • E18R Rear Defogger Grid - Right (C49)
K6	RAP	KR76 Retained Accessory Power Relay	—	• S79D Window Switch - Driver (A31) • S79P Window Switch - Passenger (A31)
Important: Relays listed below are non-serviceable Printed Circuit Board (PCB) relays and are internal to the block.				
K7	BCK/UP	KR40 Backup Lamp Relay	—	• E5A Backup Lamp - Left • E5B Backup Lamp - Right • P3 Backup Alarm (8S3) • X88 Trailer Connector • X405 (Cutaway)
K8	UPFTR CTSY LAMP(S)	KR78 Courtesy Lamps Provision Relay	—	• E36AC Dome Lamp - Left Roof Rail (Cargo Without 5BV) • E36AD Dome Lamp - Right Roof Rail (Cargo Without 5BV) • E36AH Dome Lamp (Cargo without 5BV) • E37F Dome/Reading Lamps - Front • E37M Dome/Reading Lamps - Middle (Passenger) • E37R Dome/Reading Lamps - Rear (Passenger without 5BV) • K9 Body Control Module • X320 (5BV) • X405
K9A	FTR REAR PASS DR UNLCK	KR90P Passenger/ Cargo Door Unlock Relay	—	• A23P Door Latch Assembly - Passenger (AU3) • M14RR Door Lock Actuator - Right Rear (AU3) • KR90A Cargo Door Unlock Relay (AU3) • X87RB Sliding Door Jamb Contact Plate - Right Body
K9B	DRVR DR UNLCK	KR92D Driver Door Unlatch Relay	—	• A23D Door Latch Assembly - Driver (AU3)

Usage Table (cont'd)

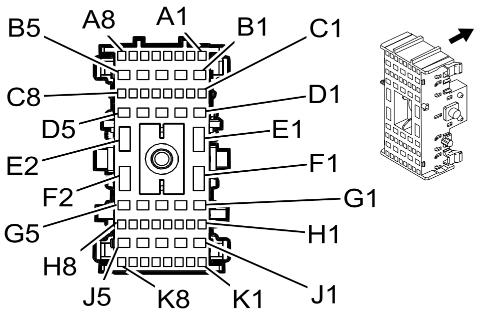
No.	Device Label Name	Device Assigned Name	Rating	Description
K10A	FTR REAR DR LCK	KR97 Door Lock Relay	—	• A23D Door Latch Assembly - Driver (AU3) • A23P Door Latch Assembly - Passenger (AU3) • M13 Door Latch Assembly - Rear Cargo (Passenger or Cargo) • M14RR Door Lock Actuator - Right Rear (E24 or YA2) • X87RB Sliding Door Jamb Contact Plate - Right Body (E24 or YA2)
K10B	CARGO DR UNLCK	KR90A Cargo Door Unlock Relay	—	• M13 Door Latch Assembly - Rear Cargo (AU3)

X52A Fuse Block - Passenger Compartment Bottom View


X1
X2
K8
K1
J5
J1
H8
H1
G5
G1
D5
D1
C8
C1
B5
B1
A8
A1
K8
K1
J5
J1
H8
H1
G5
G1
D5
D1
C8
C1
B5
B1
A8
A1

2832070

X52A Fuse Block - Passenger Compartment X1



2083844

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15477823
Service Connector: 13574911
Description: 56-Way F 150, 280 GT Metri-Pack Series (L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575479	J-35616-14 (GN)	J-38125-553	12191812	Delphi 19	E	C
II	13575735	J-35616-14 (GN)	J-38125-553	12191812	Delphi 19	C	A
III	13575735	J-35616-14 (GN)	J-38125-553	12191812	Delphi 19	E	C
IV	13575753	J-35616-4A (PU)	J-38125-553	15304711	Delphi 8	2	A
V	13575753	J-35616-4A (PU)	J-38125-553	15304711	Delphi 8	E	A
VI	13579922	J-35616-44 (YE)	J-38125-558	12065915	Delphi 5	C	A
VII	19367554	J-35616-44 (YE)	J-38125-558	12110127	Delphi 19	F	G

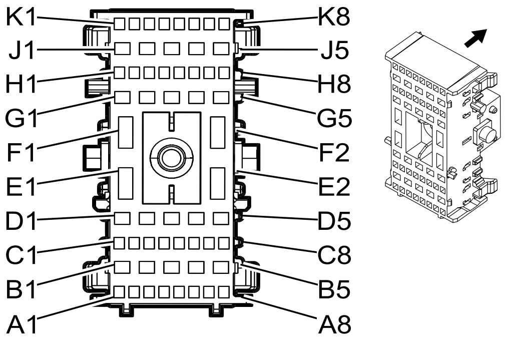
X52A Fuse Block - Passenger Compartment X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1 - A3	—	—	—	Not Occupied	—	—
A4	0.5	YE	6817	LED Backlight Dimming Control	III	—
A5	0.35	D-BU/	45	Park Lamp Relay Control	I	—
A6	0.35	BN	6136	Control	I	—
A7 - A8	—	—	—	Not Occupied	—	—
B1	0.8	RD/WH	3240	Battery Positive Voltage	IV	—
B2	1	BN	2109	Trailer Park Lamp Control	IV	—
B3	0.35	BN	341	Run Ignition 3 Voltage	V	—
B4	0.8	BN	2309	Front Park Lamp Control	IV	—
B5	1	BN	2109	Trailer Park Lamp Control	IV	—
C1	1	YE	618	Left Rear Turn Signal Lamp Control	II	—

X52A Fuse Block - Passenger Compartment X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
C2	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—
C3	1	D-GN/	619	Right Rear Turn Signal Lamp Control	II	—
C4	0.35	WH	193	Rear Defog Relay Control	I	—
C5	0.35	BN	341	Run Ignition 3 Voltage	I	—
C6	—	—	—	Not Occupied	—	—
C7	0.35	OG	300	Run Ignition 3 Voltage	I	—
C8 - D3	—	—	—	Not Occupied	—	—
D4	0.5	VT/BK	1639	Run/Crank Ignition 1 Voltage	V	—
D5	0.5 1	D-BU/ BN	6807 141	DC To AC Inverter Control Run Ignition 3 Voltage	V IV	— —
E1	5	RD/BK	1042	Battery Positive Voltage	VII	—
E2	0.8	BK	350	Ground	VI	—
F1	5	BN	541	Run Ignition 3 Voltage	VII	—
F2 - G2	—	—	—	Not Occupied	—	—
G3	0.5 0.8	GY D-BU/WH	5861 1315	Passenger Side Object Detection LED Signal 1 Right Front Turn Signal Lamp Control	V IV	— —
G4	1	RD/WH	340	Battery Positive Voltage	IV	—
G5	—	—	—	Not Occupied	—	—
H1	0.5 0.8	GY/YE L-BU/WH	5853 1314	Driver Side Object Detection LED Signal 1 Left Front Turn Signal Lamp Control	III II	— —
H2	0.8 1	D-BU/WH D-BU/WH	149 149	Courtesy Lamp Control Courtesy Lamp Control	II II	CARGO/ PASSENGER-5BV CUTAWAY-5BV
H3	0.35	BK/WH	351	Signal Ground	I	—
H4	0.35	YE	43	Accessory Ignition Voltage	I	—
H5	0.8	RD/WH	4440	Battery Positive Voltage	II	—
H6	0.35	RD/WH	2840	Battery Positive Voltage	I	—
H7	0.35	RD/WH	540	Battery Positive Voltage	I	—
H8	0.5	RD/WH	5340	Battery Positive Voltage	III	—
J1 - J4	—	—	—	Not Occupied	—	—
J5	1	L-GN/	1624	Trailer Backup Lamp Control	IV	—
K1	—	—	—	Not Occupied	—	—
K2	0.5	YE	356	Driver Door Lock Relay Unlock Control	III	—
K3	0.5	L-BU/	244	Passenger Door Lock Switch Lock Control	III	—
K4	0.35 0.5	L-BU/ L-BU/	244 244	Passenger Door Lock Switch Lock Control Passenger Door Lock Switch Lock Control	I III	AU3+PRP AU3-PRP
K5	0.5 0.35	YE BU	356 244	Driver Door Lock Relay Unlock Control Passenger Door Lock Switch Lock Control	III III	AU3 AU3+PRP
K6	—	—	—	Not Occupied	—	—
K7	0.5	GY/BK	690	Courtesy Lamp Relay Control	III	—
K8	0.35	D-BU/	38	Backup Lamp Relay Control	I	—

X52A Fuse Block - Passenger Compartment X2



1581655

Connector Part Information

Harness Type: Body
OEM Connector: 15477822
Service Connector: 19115189
Description: 56-Way F 150, 280 GT Metri-Pack 800 Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575479	J-35616-14 (GN)	J-38125-553	12191812	Delphi 19	E	C
II	13575735	J-35616-14 (GN)	J-38125-553	12191812	Delphi 19	C	A
III	13575735	J-35616-14 (GN)	J-38125-553	12191812	Delphi 19	E	C
IV	13575753	J-35616-4A (PU)	J-38125-553	15304711	Delphi 8	2	A
V	13575753	J-35616-4A (PU)	J-38125-553	15304711	Delphi 8	E	A
VI	13575753	J-35616-4A (PU)	J-38125-553	Not Available	Not Available	Not Available	Not Available
VII	13575756	J-35616-4A (PU)	J-38125-553	15304713	Delphi 19	F	D
VIII	19367554	J-35616-44 (YE)	J-38125-558	12110127	Delphi 19	F	G
IX	Not Available	No Tool Required	Not Available	Not Required	Not Required	Not Required	Not Required
X	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

X52A Fuse Block - Passenger Compartment X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1 - A2	—	—	—	Not Occupied	—	—
A3	0.5	RD/WH	3440	Battery Positive Voltage	III	—
A4	0.5	BN	2509	Left Rear Park Lamp Control	III	—
A5	0.5	BN	2609	Right Rear Park Lamp Control	III	—

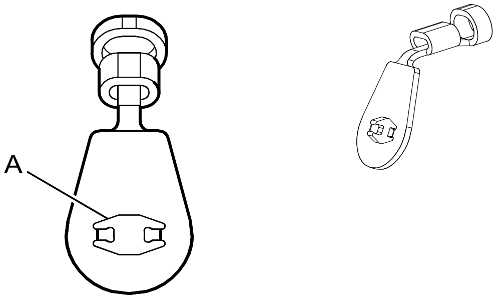
X52A Fuse Block - Passenger Compartment X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A6	0.5 0.5	RD/VT RD/WH	102 4340	Battery Positive Voltage Battery Positive Voltage	III III	AU3+WRF-DE5/ DEB/DEE DEB/DEE/DE5
A7 - A8	—	—	—	Not Occupied	—	—
B1	3	RD/WH	3540	Battery Positive Voltage	VII	—
B2	3	RD/WH	3540	Battery Positive Voltage	VII	—
B3	1	RD/WH	3240	Battery Positive Voltage	IV	—
B4	0.5	BN	2209	Rear Park Lamp Control	V	—
B5 - C1	—	—	—	Not Occupied	—	—
C2	1	RD/WH	3240	Battery Positive Voltage	II	—
C3	0.35	BN	341	Run Ignition 3 Voltage	I	—
C4	0.35	BN	341	Run Ignition 3 Voltage	I	—
C5	0.35	BN	341	Run Ignition 3 Voltage	I	—
C6	1	D-GN	619	Right Rear Turn Signal Lamp Control	II	—
C7	1	YE	618	Left Rear Turn Signal Lamp Control	II	—
C8	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—
D1	5	PU	293	Rear Defog Element Control	VII	—
D2	5	PU	293	Rear Defog Element Control	VII	—
D3	0.8	OG	2267	Mirror Heating Element Control	IV	—
D4	0.8	OG	2267	Mirror Heating Element Control	IV	—
D5	0.5	RD/GN	3140	Battery Positive Voltage	V	UEU/UFL
E1	—	—	—	Not Occupied	—	—
E2	5	RD/BK	1042	Battery Positive Voltage	VIII	—
F1	5	RD/WH	1740	Battery Positive Voltage	VIII	—
F2	2 5	BN BN	541 541	Run Ignition 3 Voltage Run Ignition 3 Voltage	IV VIII	5B3/5GA 5BV/YF1
G1	3	D-GN	1001	Retained Accessory Power Ignition	VII	—
G2	3	D-GN	1001	Retained Accessory Power Ignition	VII	—
G3	—	—	—	Not Occupied	—	—
G4	1	GY	295	Door Lock Actuator Lock Control	IV	—
G5	1	GY	295	Door Lock Actuator Lock Control	IV	—
H1	—	—	—	Not Occupied	—	—
H2	0.5	BK/BN	6045	Steering Angle Sensor Low Reference	III	—
H3	0.35	BK/WH	351	Signal Ground	III	—
H4	—	—	—	Not Occupied	—	—
H5	0.5 0.5	GY D-BU/WH	5861 1315	Passenger Side Object Detection LED Signal 1 Right Front Turn Signal Lamp Control	X III	UFT -UFT
H6	0.5 0.5	GY/YE L-BU/WH	5853 1314	Driver Side Object Detection LED Signal 1 Left Front Turn Signal Lamp Control	IX III	UFT -UFT
H7	0.5	D-BU/WH	149	Courtesy Lamp Control	III	—
H8	0.5 0.8 1	D-BU/WH D-BU/WH D-BU/WH	149 149 149	Courtesy Lamp Control Courtesy Lamp Control Courtesy Lamp Control	III II II	5BV+CARGO CARGO-5BV PASSENGER
J1	0.8	TN	694	Driver Door Lock Actuator Unlock Control	IV	—
J2	1	TN	294	Door Lock Actuator Unlock Control	IV	—
J3	0.8	TN	294	Door Lock Actuator Unlock Control	IV	—

X52A Fuse Block - Passenger Compartment X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
J4	0.8	TN	294	Door Lock Actuator Unlock Control	IV	—
J5	0.8	GY	295	Door Lock Actuator Lock Control	VI	—
K1 - K2	—	—	—	Not Occupied	—	—
K3	1	TN/BK	1095	Right Rear Door Lock Actuator Unlock Control	II	—
K4 - K6	—	—	—	Not Occupied	—	—
K7	1	TN	294	Door Lock Actuator Unlock Control	II	—
K8	1	L-GN/	24	Backup Lamp Control	II	—

X52A Fuse Block - Passenger Compartment X3



4831037

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12160241
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

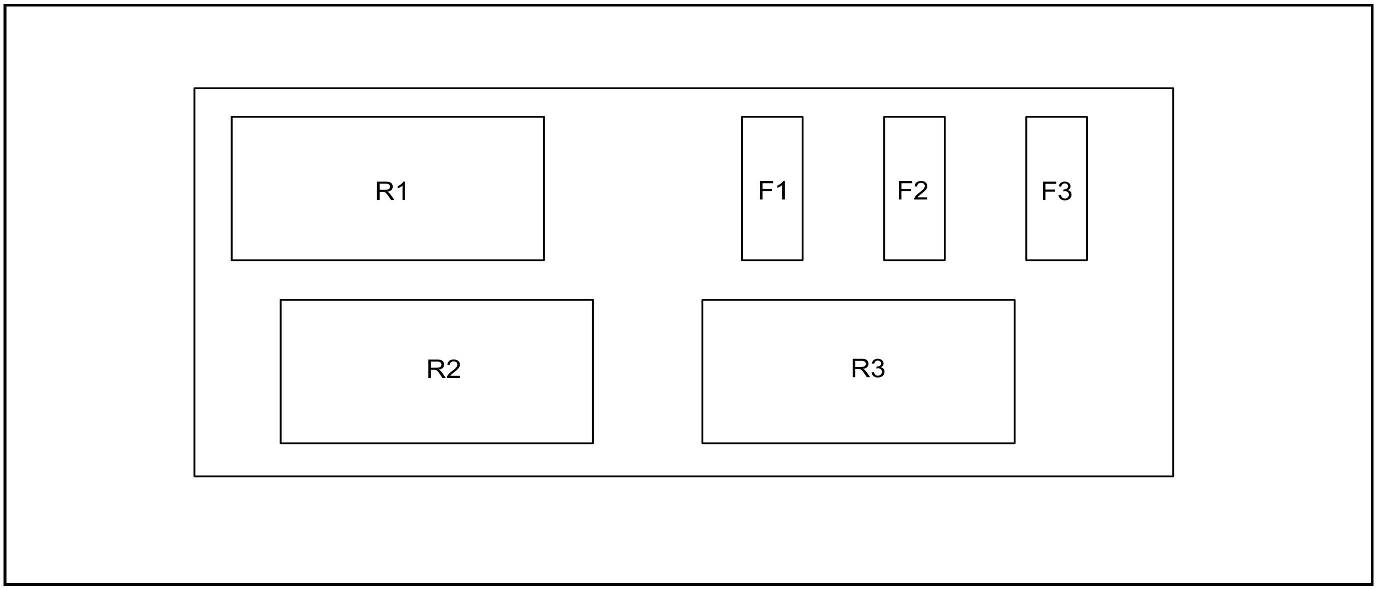
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

X52A Fuse Block - Passenger Compartment X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	19	RD	842	Battery Positive Voltage	I	—

X53A Fuse Block - Rear Body Top View (PRP)



3988749

Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Fuses				
F1	DOME FLUORESCENT WORK LAMPS	F1RA	10A	• E21A Fluorescent Work Lamp - Right Access Panel • E21F Fluorescent Work Lamp - Front Cargo • E21LF Fluorescent Work Lamp - Left Front Access Panel • E21R Fluorescent Work Lamp - Rear Cargo • E21LR Fluorescent Work Lamp - Left Rear Access Panel
F2	PANEL ACTUATOR	F2RA	15A	• KR89LF Left Front Access Panel Relay • KR89LR Left Rear Access Panel Relay • KR89RR Right Rear Access Panel Relay
F3	SPARE	F3RA	—	• Not Used
Relays				
R1	LEFT REAR ACCESS PANEL RELAY	KR89LR Left Rear Access Panel Relay	—	• M2C Access Panel Unlatch Actuator - Left Rear Side Front • M2D Access Panel Unlatch Actuator - Left Rear Side Rear
R2	LEFT FRONT ACCESS PANEL RELAY	KR89LF Left Front Access Panel Relay	—	• M2A Access Panel Unlatch Actuator - Left Front Side Front • M2B Access Panel Unlatch Actuator - Left Front Side Rear
R3	RIGHT REAR ACCESS PANEL RELAY	KR89RR Right Rear Access Panel Relay	—	• M2E Access Panel Unlatch Actuator - Right Side Front • M2F Access Panel Unlatch Actuator - Right Side Rear

X53A Fuse Block - Rear Body

—

Connector Part Information

Harness Type: Rear Body
OEM Connector: 63995
Service Connector: Service by Component Assembly - See Part Catalog
Description: —

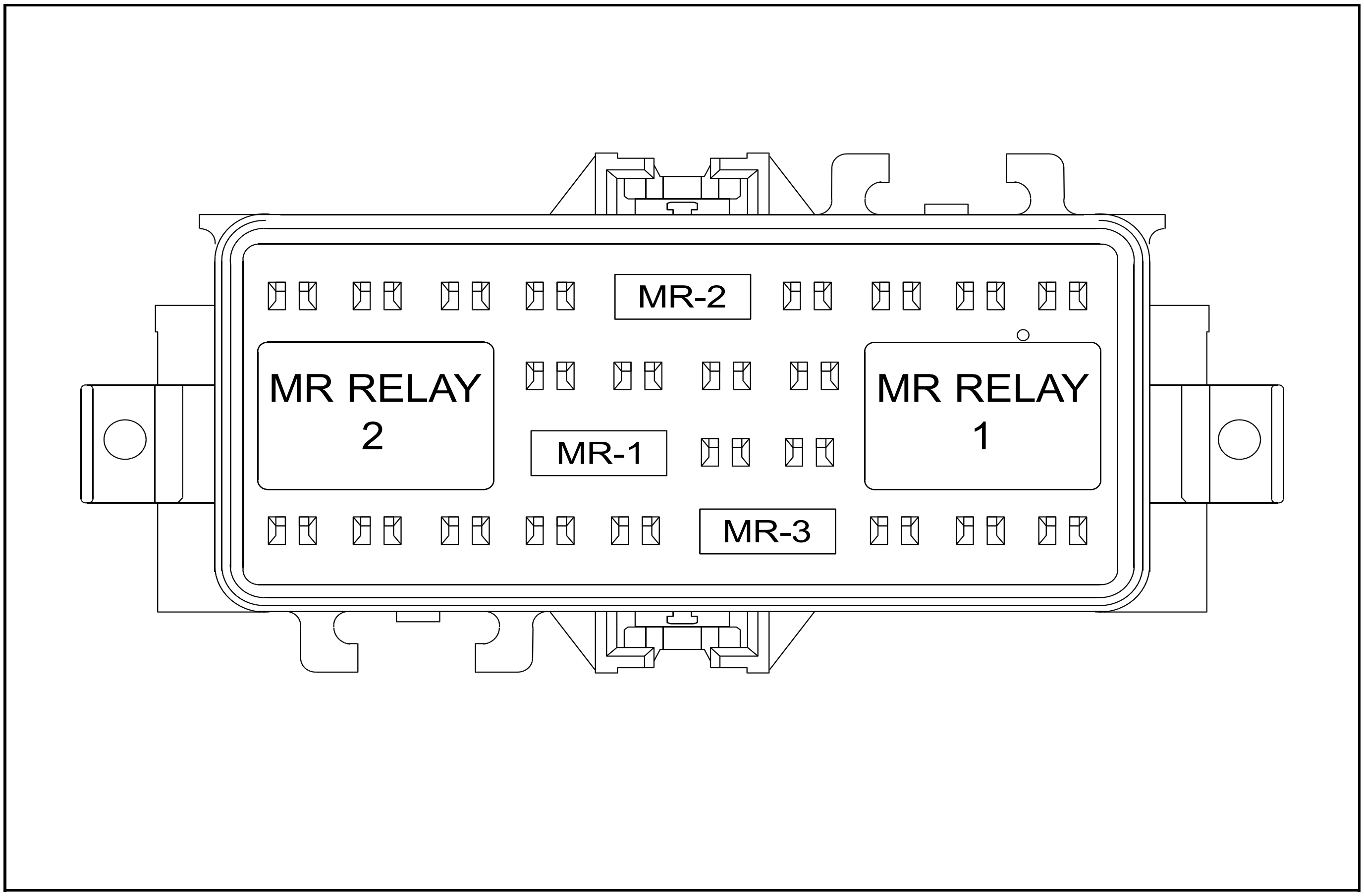
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X53A Fuse Block - Rear Body

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.8	OG	740	Battery Positive Voltage	I	—
2	0.8	TN	294	Door Lock Actuator Unlock Control	I	—
3	0.5	L-BU/WH	244	Passenger Door Lock Switch Lock Control	I	—
5	0.5	OG	5810	Park Enable Signal	I	—
6	0.8	OG	740	Battery Positive Voltage	I	—
7	0.8	PK	1092	Left Rear Door Lock Actuator Unlock Control	I	—
8	20	L-GN	1391	Left Front Door Lock Relay Control	I	—
10	0.5	OG	5810	Park Enable Signal	I	—
11	0.8	OG	740	Battery Positive Voltage	I	—
12	0.8	TN/BK	1095	Right Rear Door Lock Actuator Unlock Control	I	—
13	0.5	L-BU	1344	Rear Compartment Lid Release Relay Control	I	—
15	0.5	OG	5810	Park Enable Signal	I	—
16	0.8	RD	1732	Electronic Control Unit 12V Reference 3	III	—
17	0.8	D-BU/WH	149	Courtesy Lamp Control	III	—
18	5	RD	1042	Battery Positive Voltage	II	—
19	1	OG	740	Battery Positive Voltage	III	—

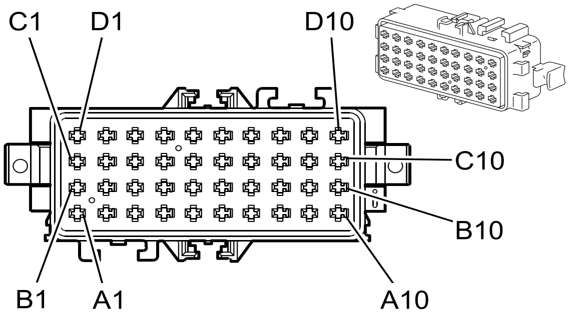
X54D Fuse Block - Fuel Heater Top View



Usage Table

No.	Device Label Name	Device Assigned Name	Rating	Description
Fuses				
F1	MR-1	F1BA	30A	• E11A Fuel Heater/Water in Fuel Sensor
F2	MR-2	F2BA	30A	• K115 Reductant Control Module
F3	MR-3	F3BA	10A	• K115 Reductant Control Module
Relays				
R1	MR RELAY 1	KR22 Fuel Heater Relay	—	• F1BA
R2	MR RELAY 2	KR121A Reductant Control Module Relay 1	—	• F2BA • F3BA

X54D Fuse Block - Fuel Heater



2002692

Connector Part Information

Harness Type: Engine
OEM Connector: 13607200
Service Connector: Service by Component - See Part Catalog
Description: 40-Way F 2.8 MCP Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19300440	J-35616-4A (PU)	J-38125-557	Not Required	Not Required	Not Required	Not Required

X54D Fuse Block - Fuel Heater

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1 - A5	—	—	—	Not Occupied	—	—
A6	0.5	VT/YE	5985	Accessory Wakeup Serial Data	I	—
A7	2	RD/WH	5440	Battery Positive Voltage	I	—
A8 - A10	—	—	—	Not Occupied	—	—
B1	2.5	RD/YE	2	Battery Positive Voltage	I	—
B2	—	—	—	Not Occupied	—	—
B3	0.5	BU	3017	Fuel Heater Relay Control 1	I	—
B4	2.5	VT/L-GN	355	Fuel Filter Heater Voltage	I	—
B5	2.5	RD/WH	6440	Battery Positive Voltage	I	—
B6 - B7	—	—	—	Not Occupied	—	—
B8	2.5	RD/YE	2	Battery Positive Voltage	I	—
B9	—	—	—	Not Occupied	—	—
B10	0.5	L-GN/D-BU	3889	DEF Power Module Relay Control	I	—
C1	2.5	RD/YE	2	Battery Positive Voltage	I	—
C2	—	—	—	Not Occupied	—	—
C3	2.5	RD/WH	6440	Battery Positive Voltage	I	—
C4 - C7	—	—	—	Not Occupied	—	—
C8	2.5	RD/YE	2	Battery Positive Voltage	I	—
C9	—	—	—	Not Occupied	—	—
C10	2.5	RD/WH	5440	Battery Positive Voltage	I	—

X54D Fuse Block - Fuel Heater (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
D1 - D4	—	—	—	Not Occupied	—	—
D5	2.5	BU	3921	DEF Heater Supply 1	I	—
D6	2.5	RD/WH	5440	Battery Positive Voltage	I	—
D7 - D10	—	—	—	Not Occupied	—	—

X55AF Fuse Holder - Engine Control Module

—

Connector Part Information

Harness Type: Positive Battery Cable
OEM Connector: 35034412
Service Connector: Service by Component Assembly - See Part Catalog
Description: —

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X55AF Fuse Holder - Engine Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	8	RD	2	Battery Positive Voltage	I	—
2	8	RD	2	Battery Positive Voltage	I	—

X55AS Fuse Holder - Rear Body Fuse Block

—

Connector Part Information

Harness Type: Positive Battery Cable
OEM Connector: 35034411
Service Connector: Service by Component Assembly - See Part Catalog
Description: —

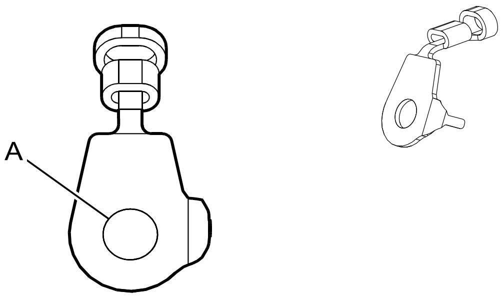
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X55AS Fuse Holder - Rear Body Fuse Block

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	8	RD	2	Battery Positive Voltage	I	—
2	8	RD	2	Battery Positive Voltage	I	—

X60A Junction Block - Underhood (L96/LC8)



4831180

Connector Part Information

Harness Type: Positive Battery Cable
OEM Connector: 12160208
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

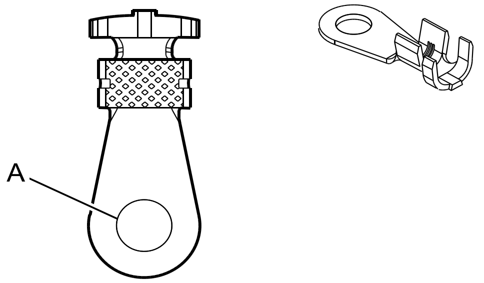
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

X60A Junction Block - Underhood (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	19	RD	1	Unfused Battery Positive Voltage	I	—

X60A Junction Block - Underhood (LWN)



4937555

Connector Part Information

Harness Type: Positive Battery Cable
OEM Connector: 12103014
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way Ring Terminal

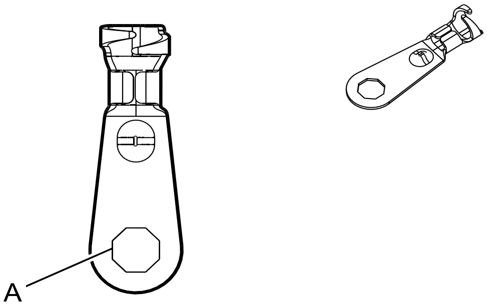
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

X60A Junction Block - Underhood (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	32	RD	1	Unfused Battery Positive Voltage	I	—
	8	RD	2	Battery Positive Voltage		—

X60A Junction Block - Underhood (LWN+TP2)



3214043

Connector Part Information

Harness Type: Positive Battery Cable
OEM Connector: 12146361
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

Terminal Part Information

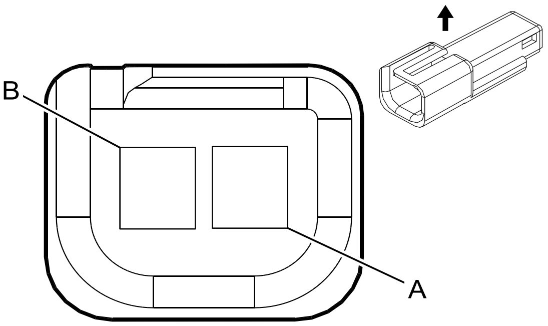
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

X60A Junction Block - Underhood (LWN+TP2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	32	RD	1	Unfused Battery Positive Voltage	I	—

Component Connector End Views

A3L Sunshade - Left



35441

Connector Part Information

Harness Type: Front Headliner
OEM Connector: 12047663
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 150 Metri-Pack Series (BK)

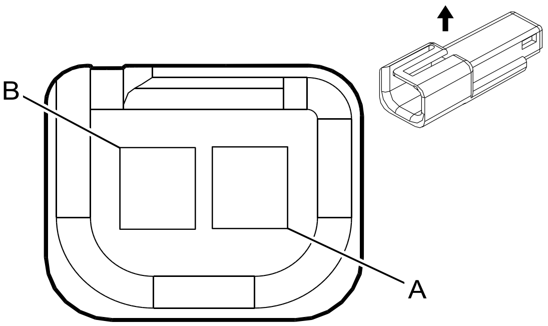
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

A3L Sunshade - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	OG	1732	Electronic Control Unit 12V Reference 3	I	—
B	—	BK	1850	Ground	I	—

A3R Sunshade - Right



35441

Connector Part Information

Harness Type: Headliner
OEM Connector: 12047663
Service Connector: 13584278
Description: 2-Way M 150 Metri-Pack Series (BK)

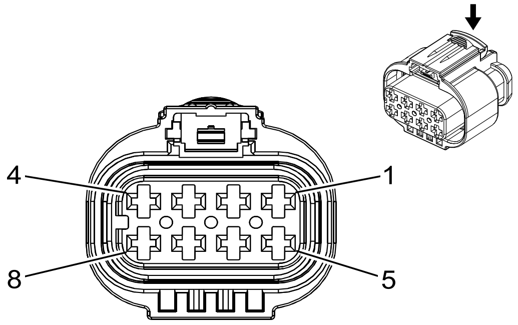
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A3R Sunshade - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	OG	1732	Electronic Control Unit 12V Reference 3	I	DH6+TR9-YFI
	0.8	OG	1732	Electronic Control Unit 12V Reference 3	I	TR9-DH6-5BV
B	0.5	BK	1850	Ground	I	—

A7 Fuel Pump and Level Sensor Assembly



3749581

Connector Part Information

Harness Type: Chassis
OEM Connector: 33180017
Service Connector: 19355165
Description: 8-Way F 2.8 Series, Sealed (BK)

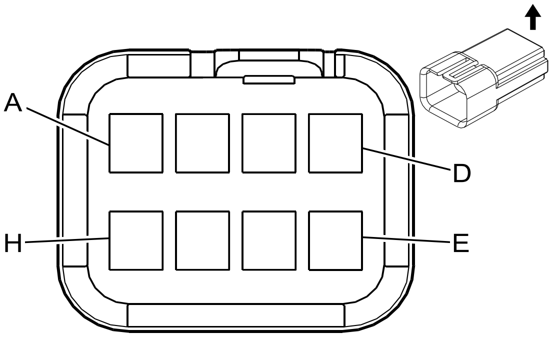
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A7 Fuel Pump and Level Sensor Assembly

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	2.5	GY	120	Fuel Pump Control	I	—
4	2.5 2	BK/L-GN BK	1580 150	Fuel Pump Low Reference Ground	I I	LV1/L96/LC8 LWN
5	0.5	BU/VT	1589	Primary Fuel Level Sensor Signal	I	—
6	0.5 0.5	BK/BN BK/L-GN	2759 6281	Fuel Tank Pressure Sensor Low Reference Fuel Level Sensor Low Reference	I I	LV1/L96/LC8 LWN
7 - 8	—	—	—	Not Occupied	—	—

A9A Outside Rearview Mirror - Driver



62434

Connector Part Information

Harness Type: Driver Door
OEM Connector: 12065396
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M 150 Metri-Pack Series (NA)

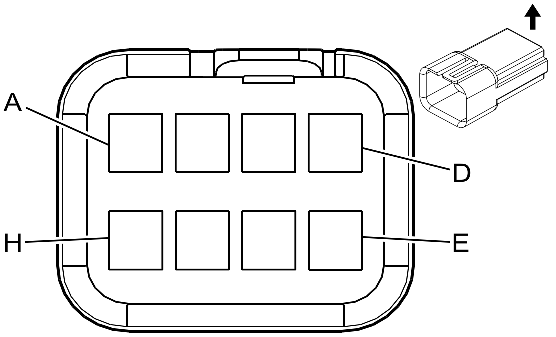
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Available	No Tool Required	Not Available	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A9A Outside Rearview Mirror - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BK	450	Ground	II	—
B	0.5 0.5	GY/YE L-BU/WH	5853 1314	Driver Side Object Detection LED Signal 1 Left Front Turn Signal Lamp Control	I II	UFT -UFT
C	0.8	OG	2267	Mirror Heating Element Control	II	—
D	0.5	BK	450	Ground	II	—
E	0.35	YE	88	Left Mirror Motor Up Control	II	—
F	0.35	L-GN	89	Left Mirror Motor Down Control	II	—
G	0.35	WH	81	Left Mirror Motor Right Control	II	—
H	0.35	YE	88	Left Mirror Motor Up Control	II	—

A9B Outside Rearview Mirror - Passenger



62434

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 12162427
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M 150 Metri-Pack Series (NA)

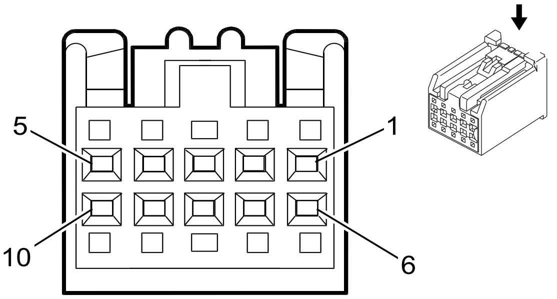
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Available	No Tool Required	Not Available	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A9B Outside Rearview Mirror - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BK	1850	Ground	II	—
B	0.5 0.5	GY D-BU/WH	5861 1315	Passenger Side Object Detection LED Signal 1 Right Front Turn Signal Lamp Control	I II	UFT -UFT
C	0.8	OG	2267	Mirror Heating Element Control	II	—
D	0.5	BK	1850	Ground	II	—
E	0.35	BN/WH	1498	Right Mirror Motor Up Control	II	—
F	0.35	PU/WH	889	Right Mirror Motor Down Control	II	—
G	0.35	OG/WH	881	Right Mirror Motor Right Control	II	—
H	0.35	BN/WH	1498	Right Mirror Motor Up Control	II	—

A10 Inside Rearview Mirror (UEU/UFL)



2180211

Connector Part Information

Harness Type: Headliner
OEM Connector: 13815336
Service Connector: 13577390
Description: 10-Way F 0.64 Kaizen Series (BK)

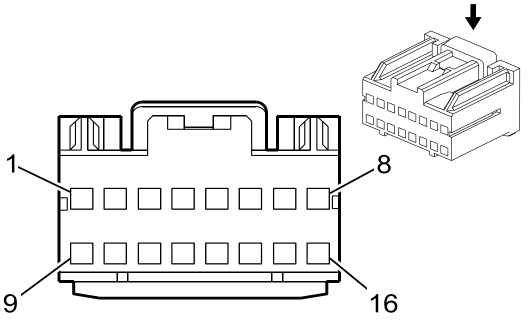
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575742	J-35616-64B (LT BU)	J-38125-215A	SAIT-A03T-M064	Yazaki 14	P	P

A10 Inside Rearview Mirror (UEU/UFL)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN/WH	24	Backup Lamp Control	I	—
2	0.5	VT/WH	239	Run/Crank Ignition 1 Voltage	I	—
3 - 4	—	—	—	Not Occupied	—	—
5	0.5	BK/WH	351	Signal Ground	I	—
6	0.5	D-BU	7641	Camera Rear Vision Signal +	I	—
7	0.5	WH	7642	Camera Rear Vision Signal (-)	I	—
8 - 10	—	—	—	Not Occupied	—	—

A10 Inside Rearview Mirror (-UEU/UFL)



1711009

Connector Part Information

Harness Type: Headliner
OEM Connector: 15441350
Service Connector: 15306351
Description: 16-Way F 100A Micro-Pack Series (BK)

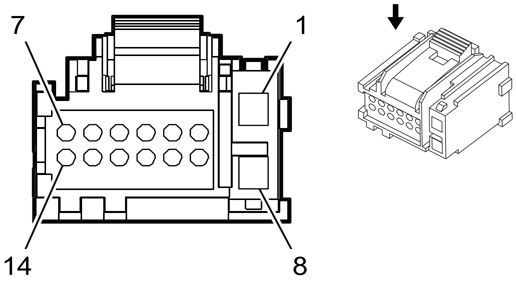
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575548	J-35616-16 (LT GN)	J-38125-559	15445905	Delphi 23	J	J

A10 Inside Rearview Mirror (-UEU/UFL)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 5	—	—	—	Not Occupied	—	—
6	0.5	D-BU	7641	Camera Rear Vision Signal +	I	—
7	0.5	L-BU	7642	Camera Rear Vision Signal (-)	I	—
8	0.5	BK/WH	351	Signal Ground	I	—
9	0.5	L-GN	24	Backup Lamp Control	I	—
10 - 12	—	—	—	Not Occupied	—	—
13	0.5	PK	239	Run/Crank Ignition 1 Voltage	I	—
14 - 16	—	—	—	Not Occupied	—	—

A11 Radio X1



2684742

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13545675
Service Connector: 13580448
Description: 14-Way F 0.64 Micro-Pack, 150 GT Series (BK)

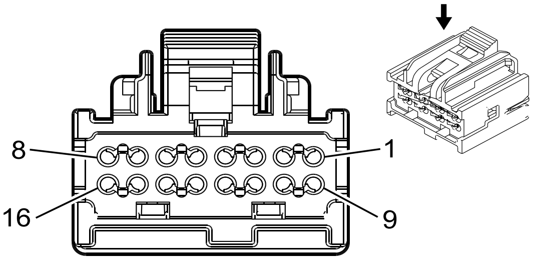
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575735	J-35616-14 (GN)	J-38125-553	12191812	Delphi 19	C	A
II	13579976	J-35616-64B (LT BU)	J-38125-21	15359541	Delphi 4	M	M
III	13582245	J-35616-64B (LT BU)	J-38125-21	15359541	Delphi 4	M	M

A11 Radio X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	RD/WH	340	Battery Positive Voltage	I	—
2	0.8	D-BU/	1857	Left Front Midrange Speaker Control (+)	II	—
3	0.8	OG	1853	Right Front Midrange Speaker Control (+)	II	—
4	0.35 0.8	PK GY	5149 655	Voice Recognition Audio Signal Cellular Telephone Microphone Signal	III II	UE1+UI8 UI8-UE1
5	0.35 0.8	PK/BK D-GN/	5152 654	Voice Recognition Audio Low Reference Cellular Telephone Microphone Low Reference	III II	UE1+UI8 UI8-UE1
6	—	—	—	Not Occupied	—	—
7	0.35	YE	6817	LED Backlight Dimming Control	III	—
8	1	BK/WH	351	Signal Ground	I	—
9	0.8	L-BU/	1957	Left Front Midrange Speaker (-) Low Reference	II	—
10	0.8	D-GN/	1953	Right Front Midrange Speaker (-) Low Reference	II	—
11 - 12	—	—	—	Not Occupied	—	—
13	0.35	D-GN/	5060	Low Speed GMLAN Serial Data	III	—
14	—	—	—	Not Occupied	—	—

A11 Radio X2



2127936

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13567860
Service Connector: 13504130
Description: 16-Way F 64 Micro-Series, Sealed (PU)

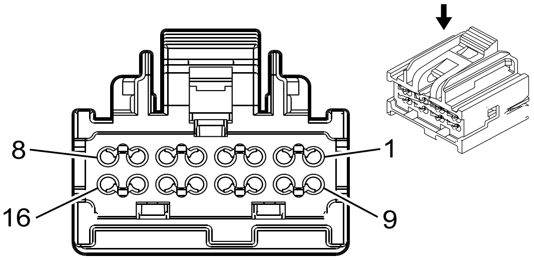
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13579976	J-35616-64B (LT BU)	J-38125-21	15359541	Delphi 4	M	M
II	13582245	J-35616-64B (LT BU)	J-38125-21	15359541	Delphi 4	M	M

A11 Radio X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN/WH	367	Remote Radio Left Audio Signal	II	—
2	0.35	D-GN/WH	368	Remote Radio Right Audio Signal 1	II	—
3 - 4	—	—	—	Not Occupied	—	—
5	0.8	TN	1859	Left Rear Midrange Speaker Control (+)	I	—
6	0.8	TN	1855	Right Rear Midrange Speaker Control (+)	I	—
7	0.35 0.8	D-BU/ D-BU/	658 658	Cellular Telephone Voice Signal Cellular Telephone Voice Signal	II I	UE1+UI8 UE1-UI8
8	—	—	—	Not Occupied	—	—
9	0.35	TN/WH	372	Remote Radio Audio (-) Low Reference	II	—
10	0.35	GY	388	Remote Radio Right Audio Signal 2	II	—
11 - 12	—	—	—	Not Occupied	—	—
13	0.8	WH	1959	Left Rear Midrange Speaker (-) Low Reference	I	—
14	0.8	OG	1955	Right Rear Midrange Speaker (-) Low Reference	I	—
15	0.35 0.8	L-BU/BK L-BU/BK	659 659	Cellular Telephone Voice Low Reference Cellular Telephone Voice Low Reference	II I	UE1+UI8 UE1-UI8
16	—	—	—	Not Occupied	—	—

A12 Digital Radio Receiver Control Module X1



2127936

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13568238
Service Connector: 13504130
Description: 16-Way F 64 Micro-Series, Sealed (BK)

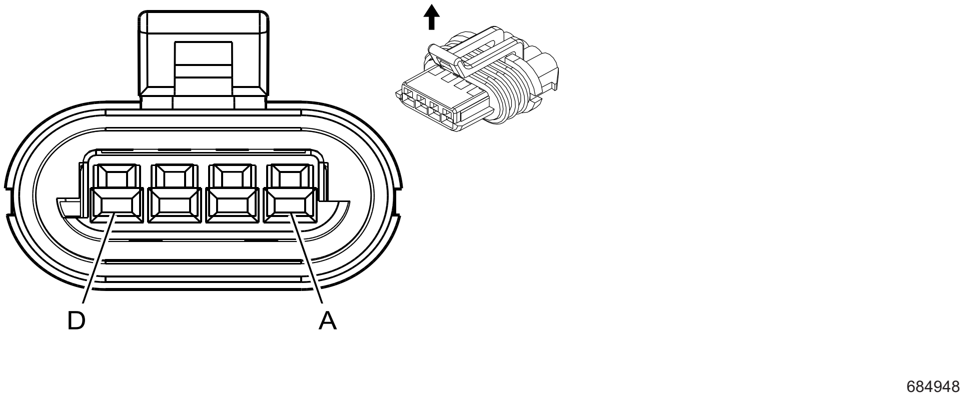
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13579976	J-35616-64B (LT BU)	J-38125-21	15359541	Delphi 4	M	M
II	13582245	J-35616-64B (LT BU)	J-38125-21	15359541	Delphi 4	M	M

A12 Digital Radio Receiver Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	TN/WH	372	Remote Radio Audio (-) Low Reference	II	—
2	0.35	BN/WH	367	Remote Radio Left Audio Signal	II	—
3	0.35	D-GN/WH	368	Remote Radio Right Audio Signal 1	II	—
4	0.35	GY	388	Remote Radio Right Audio Signal 2	II	—
5	0.5	D-GN	5060	Low Speed GMLAN Serial Data	I	—
6 - 8	—	—	—	Not Occupied	—	—
9	0.8	BK/WH	351	Signal Ground	I	—
10	—	—	—	Not Occupied	—	—
11	0.35	Bare	1573	Front Audio Low Reference	II	—
12 - 15	—	—	—	Not Occupied	—	—
16	0.8	RD/WH	340	Battery Positive Voltage	I	—

A23D Door Latch Assembly - Driver X1



Connector Part Information

Harness Type: Driver Door
OEM Connector: 15354716
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 GT Series, Sealed (BK)

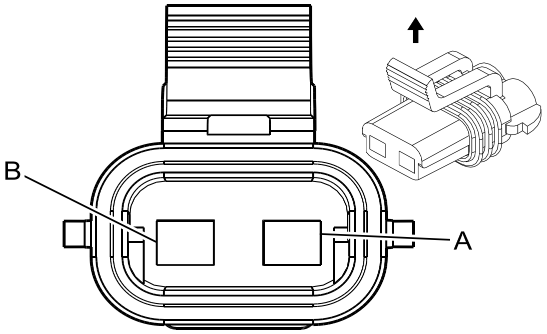
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A23D Door Latch Assembly - Driver X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	TN	126	Left Front Door Open Switch Signal	I	—
B	0.35	GY/BK	745	Left Front Door Ajar Switch Signal	I	—
C	—	—	—	Not Occupied	—	—
D	0.35	BK	450	Ground	I	—

A23D Door Latch Assembly - Driver X2



68721

Connector Part Information

Harness Type: Driver Door
OEM Connector: 15300027
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

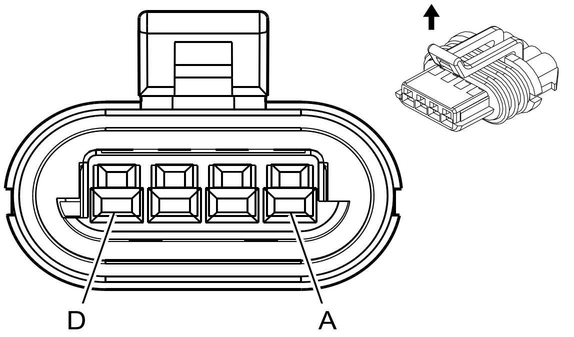
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A23D Door Latch Assembly - Driver X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	TN	694	Driver Door Lock Actuator Unlock Control	I	—
B	0.8	GY	295	Door Lock Actuator Lock Control	I	—

A23P Door Latch Assembly - Passenger X1



684948

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 15354716
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 GT Series, Sealed (BK)

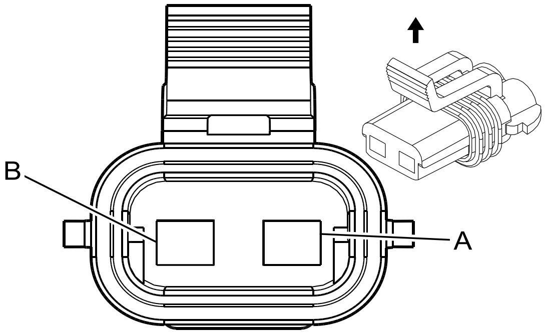
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A23P Door Latch Assembly - Passenger X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK	1850	Ground	I	—
B	—	—	—	Not Occupied	—	—
C	0.35	TN/WH	746	Right Front Door Ajar Switch Signal	I	—
D	0.35	L-GN	1177	Right Front Door Open Switch Signal	I	—

A23P Door Latch Assembly - Passenger X2



Connector Part Information

Harness Type: Passenger Door
OEM Connector: 15300027
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

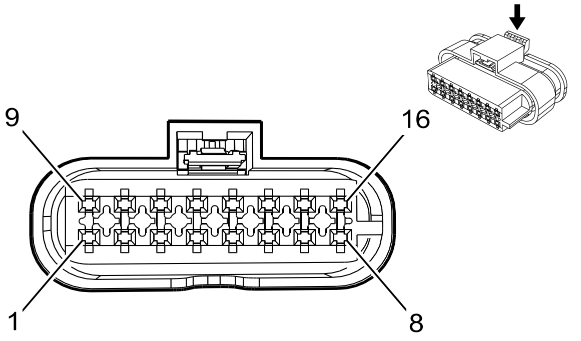
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

A23P Door Latch Assembly - Passenger X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	TN	294	Door Lock Actuator Unlock Control	I	—
B	0.8	GY	295	Door Lock Actuator Lock Control	I	—

A39 Reductant Fluid Reservoir Assembly



4259227

Connector Part Information

Harness Type: Emission Reductant Fluid Tank Reservoir
OEM Connector: 805-587-541
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F 1.2 Multilock Series (BK)

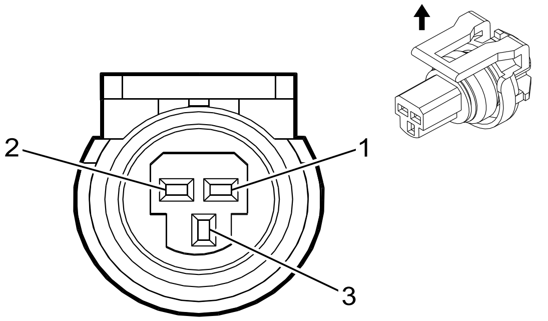
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

A39 Reductant Fluid Reservoir Assembly

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	OG	3244	DEF Tank Temperature Sensor Signal	I	—
2	—	GN	3245	DEF Tank Temperature Sensor Low Reference	I	—
3	—	YE	3107	DEF Pressure Sensor Low Reference	I	—
4	—	GY	3108	DEF Pressure Sensor Signal	I	—
5	—	BU	3106	DEF Pressure Sensor 5V Reference	I	—
6	—	VT	3029	DEF Tank Level Sensor Low Reference	I	—
7	—	BU	3876	DEF Smart Pump Control Phase 3	I	—
8	—	GN	3875	DEF Smart Pump Control Phase 2	I	—
9	—	YE	3921	DEF Heater Supply 1	I	—
10	—	—	—	Not Occupied	—	—
11	—	VT	4318	DEF Tank Heater Low Control	I	—
12	—	—	—	Not Occupied	—	—
13	—	VT	6136	Control	I	—
14	—	BU	3028	DEF Tank Level Sensor Signal	I	—
15	—	BK	3104	DEF Smart Pump Low Reference	I	—
16	—	OG	3103	DEF Smart Pump Control	I	—

B1 A/C Refrigerant Pressure Sensor



2909191

Connector Part Information

Harness Type: Engine
OEM Connector: 13846842
Service Connector: 19368669
Description: 3-Way F 150 GT Series, Sealed (BK)

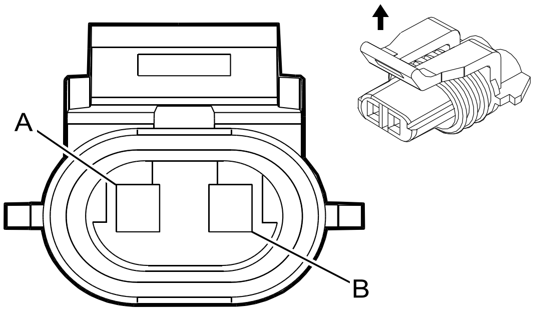
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B1 A/C Refrigerant Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/BN	5514	A/C Refrigerant Pressure Sensor Low Reference	I	C60+LV1
	0.8	TN	5514	A/C Refrigerant Pressure Sensor Low Reference	I	C60+LWN
2	0.5	BN/RD	2700	A/C Pressure Sensor 5V Reference	I	C60+LV1
	0.8	GY	2700	A/C Pressure Sensor 5V Reference	I	C60+LWN
3	0.5	L-GN/	380	A/C Refrigerant Pressure Sensor Signal	I	C60+LV1
	0.8	OG/BK	380	A/C Refrigerant Pressure Sensor Signal	I	C60+LWN

B1B A/C Low Side Pressure Switch



537107

Connector Part Information

Harness Type: Engine
OEM Connector: 12052644
Service Connector: 19368034
Description: 2-Way F 150 Metri-Pack Series, Sealed (GY)

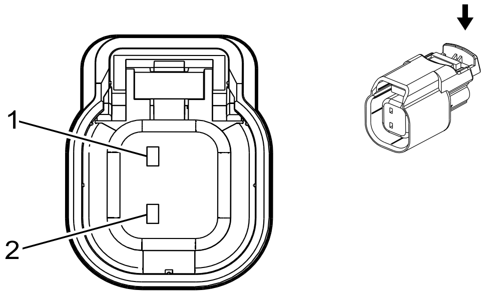
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B1B A/C Low Side Pressure Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	L-GN	66	A/C Request Signal	I	—
B	0.5	L-GN/WH	66	A/C Request Signal	I	—

B5LF Wheel Speed Sensor - Left Front



2792100

Connector Part Information

Harness Type: Chassis
OEM Connector: 13828712
Service Connector: 19352068
Description: 2-Way F 1.5 Series, Sealed (BK)

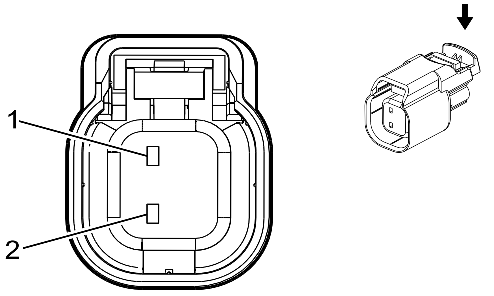
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B5LF Wheel Speed Sensor - Left Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/WH	7064	Wheel Speed Sensor Control Left Front	I	—
2	0.5	GY	830	Wheel Speed Sensor Signal Left Front	I	—

B5LR Wheel Speed Sensor - Left Rear



2792100

Connector Part Information

Harness Type: Chassis
OEM Connector: 13828712
Service Connector: 19352068
Description: 2-Way F 1.5 Series, Sealed (BK)

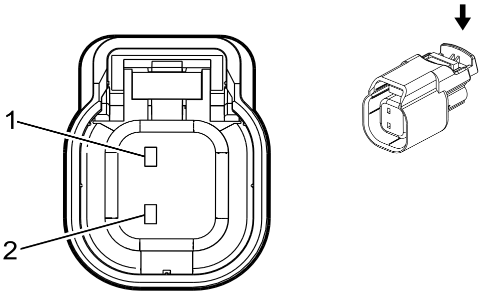
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B5LR Wheel Speed Sensor - Left Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/BK	7127	Wheel Speed Sensor Control Left Rear	I	—
2	0.5	BU	884	Wheel Speed Sensor Signal Left Rear	I	—

B5RF Wheel Speed Sensor - Right Front (LWN)



2792100

Connector Part Information

Harness Type: Engine
OEM Connector: 13828712
Service Connector: 19352068
Description: 2-Way F 1.5 Series, Sealed (BK)

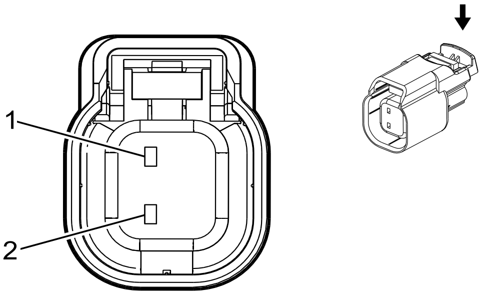
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B5RF Wheel Speed Sensor - Right Front (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/BN	7065	Wheel Speed Sensor Control Right Front	I	—
2	0.5	YE	872	Wheel Speed Sensor Signal Right Front	I	—

B5RF Wheel Speed Sensor - Right Front (-LWN)



2792100

Connector Part Information

Harness Type: Chassis
OEM Connector: 13828712
Service Connector: 19352068
Description: 2-Way F 1.5 Series, Sealed (BK)

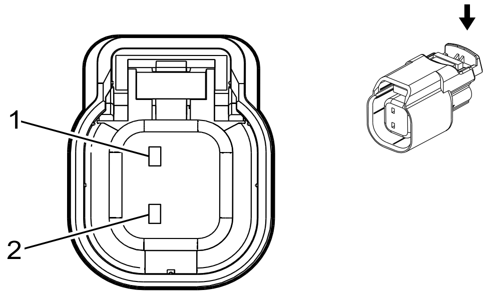
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B5RF Wheel Speed Sensor - Right Front (-LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/BN	7065	Wheel Speed Sensor Control Right Front	I	—
2	0.5	YE	872	Wheel Speed Sensor Signal Right Front	I	—

B5RR Wheel Speed Sensor - Right Rear



Connector Part Information

Harness Type: Chassis
OEM Connector: 13828712
Service Connector: 19352068
Description: 2-Way F 1.5 Series, Sealed (BK)

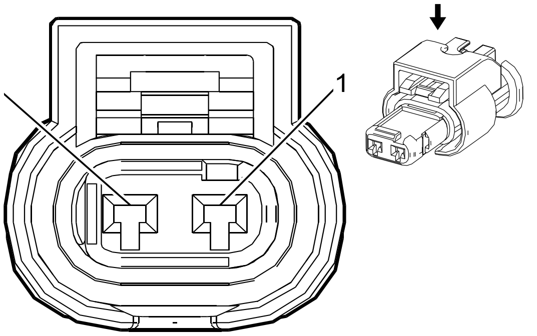
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B5RR Wheel Speed Sensor - Right Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/YE	7128	Wheel Speed Sensor Control Right Rear	I	—
2	0.5	VT	882	Wheel Speed Sensor Signal Right Rear	I	—

B9 Ambient Air Temperature Sensor (LV1)



2474752

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 13927761
Service Connector: 19329415
Description: 2-Way F 1.2 MCP Series, Sealed (BK)

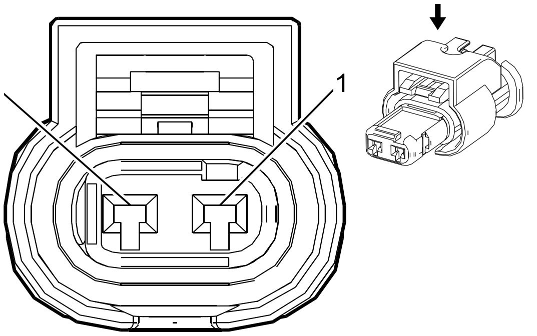
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B9 Ambient Air Temperature Sensor (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN/BK	735	Outside Ambient Air Temperature Sensor Signal	I	—
2	0.5	BK/YE	407	Sensor Low Reference	I	—

B9 Ambient Air Temperature Sensor (LWN)



2474752

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 13927761
Service Connector: 19329415
Description: 2-Way F 1.2 MCP Series, Sealed (BK)

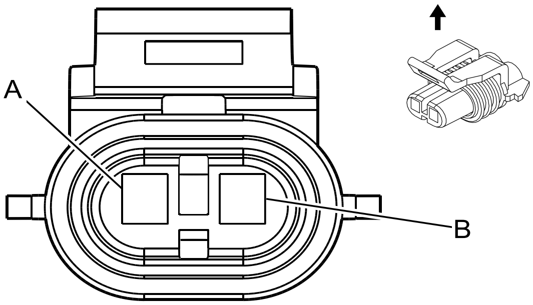
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B9 Ambient Air Temperature Sensor (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN/BK	735	Outside Ambient Air Temperature Sensor Signal	I	—
2	0.5	BK/YE	407	Sensor Low Reference	I	—

B9 Ambient Air Temperature Sensor (UFA)



684793

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 12052642
Service Connector: 12101856
Description: 2-Way F 150 Metri-Pack Series, Sealed (L-GN)

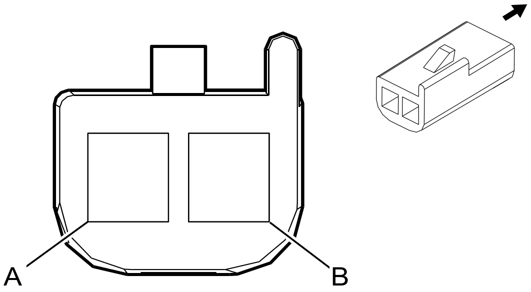
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B9 Ambient Air Temperature Sensor (UFA)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BU/GY	636	Outside Ambient Air Temperature Sensor Signal	I	UFA
B	0.5	BK/D-BU	61	Outside Ambient Temperature Sensor Low Reference	I	UFA

B10 Ambient Light Sensor



82383

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12047662
Service Connector: 12085535
Description: 2-Way F 150 Metri-Pack Series (BK)

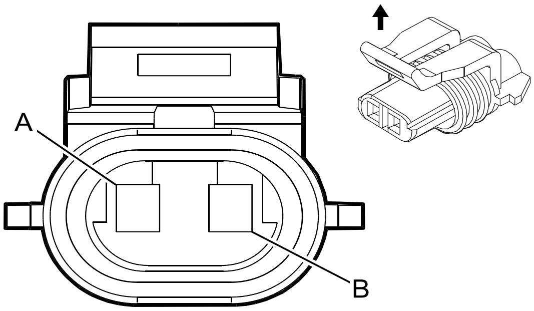
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B10 Ambient Light Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	WH	278	Ambient Light Sensor Signal	I	—
B	0.35	BK/WH	351	Signal Ground	I	—

B13 Transmission Fluid Temperature Sensor



Connector Part Information

Harness Type: Engine
OEM Connector: 12052644
Service Connector: 19368034
Description: 2-Way F 150 Metri-Pack Series, Sealed (GY)

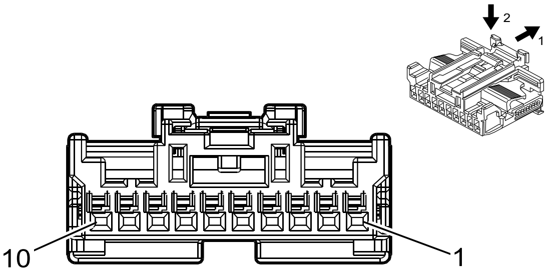
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B13 Transmission Fluid Temperature Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BK	1250	Ground	I	—
B	0.8	D-GN	29	Horn Control	I	—

B15 Transmission Internal Mode Switch (M5U)



4051038

Connector Part Information

Harness Type: Transmission Control
OEM Connector: 2291594-1
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 Generation Y Series (BN)

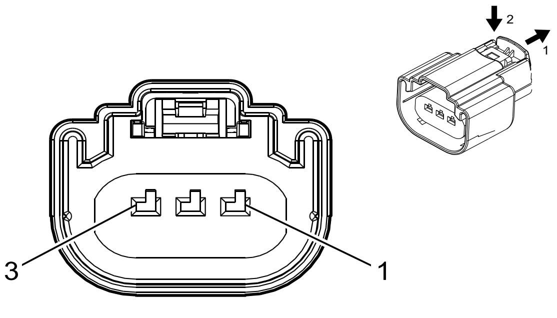
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

B15 Transmission Internal Mode Switch (M5U)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	OG/BK	1786	Transmission Park/Neutral Signal 1	I	—
2	—	WH/BK	3927	IMS Mode Switch Low Reference	I	—
3	—	—	—	Not Occupied	—	—
4	—	VT	4171	Transmission Position Sensor A 9V Reference	I	—
5	—	VT/WH	5981	PRNDL A Signal	I	—
6	—	OG/BK	5983	PRNDL C Signal	I	—
7	—	PK	4169	PRNDL S Signal	I	—
8	—	PK/BK	5982	PRNDL B Signal	I	—
9	—	GY	4168	PRNDL P Signal	I	—
10	—	VT/WH	4170	Transmission Position Sensor B 9V Reference	I	—

B18 Battery Current Sensor



4569745

Connector Part Information

Harness Type: Engine
OEM Connector: 33343869
Service Connector: 19179750
Description: 3-Way F 150 MX Series, Sealed (BK)

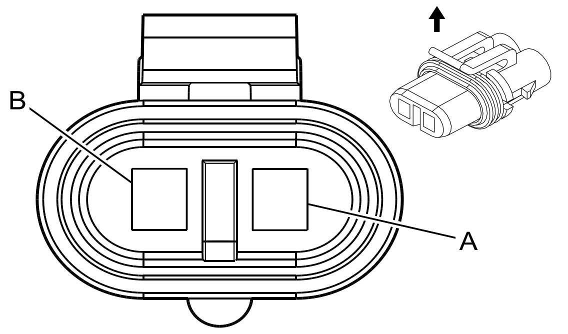
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B18 Battery Current Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	PK	5076	Current Sensor Control	I	—
2	0.5	BN	5077	Current Sensor Low Reference	I	—
3	0.5	WH	5075	Current Sensor Signal	I	—

B19A Brake Booster Fluid Pressure Alarm Switch



646148

Connector Part Information

Harness Type: Brake Fluid Level Switch
OEM Connector: 12020599
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

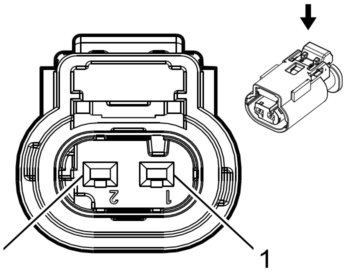
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B19A Brake Booster Fluid Pressure Alarm Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	TN/WH	33	Brake Warning Indicator Control	I	—
B	0.5	L-BU/BK	1928	Brake Booster Fluid Flow Switch Signal	I	—

B20 Brake Fluid Level Switch



2717066

Connector Part Information

Harness Type: Engine
OEM Connector: 13735326
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

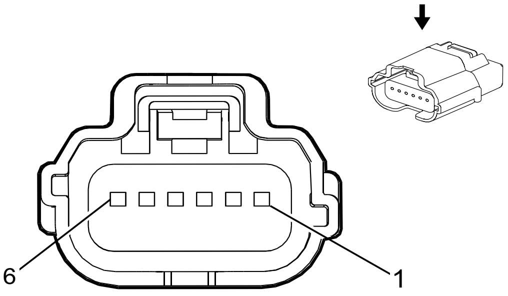
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B20 Brake Fluid Level Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/WH	1551	Signal Ground	I	L96/LC8
	0.8	BK/WH	1551	Signal Ground	I	LV1
	0.75	BK/WH	1551	Signal Ground	I	LWN
2	0.75	L-GN/GY	333	Brake Fluid Level Sensor Signal	I	—

B22 Brake Pedal Position Sensor



3270302

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13893502
Service Connector: 19304011
Description: 6-Way F 64 Series, Sealed (NA)

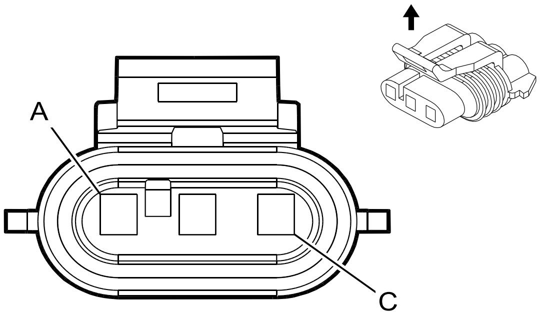
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B22 Brake Pedal Position Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/WH	5382	Brake Position Sensor Low Reference	I	—
2	0.5	GY	5381	Brake Position Sensor 5V Reference	I	—
3	0.5	TN	5380	Brake Position Sensor Signal	I	—
4	0.5	YE	5361	Brake Apply Sensor Signal	I	—
5	0.5	BN	5360	Brake Apply Sensor Low Reference	I	—
6	0.5	WH	5359	Brake Apply Sensor Control	I	—

B23 Camshaft Position Sensor (L96/LC8)



516611

Connector Part Information

Harness Type: Camshaft Position Sensor Jumper
OEM Connector: 12059595
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 150 Metri-Pack Series, Sealed (BK)

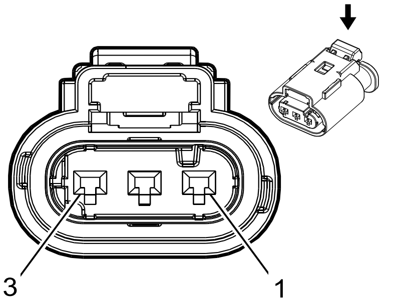
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

B23 Camshaft Position Sensor (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	D-BU	6259	Camshaft CAM W Control	I	—
B	0.8	BN	6266	Camshaft CAM W Ground	I	—
C	0.8	D-BU/WH	6265	Camshaft CAM W Signal	I	—

B23 Camshaft Position Sensor (LV1)



2717069

Connector Part Information

Harness Type: Camshaft Position Sensor Jumper
OEM Connector: 13763990
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

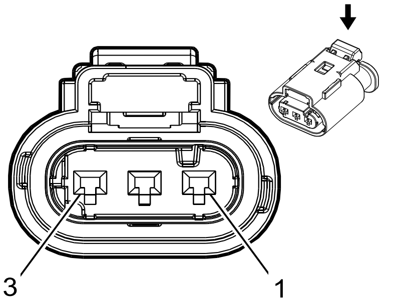
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B23 Camshaft Position Sensor (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/D-BU	5300	Camshaft Position Intake Sensor Control 1	I	—
2	0.5	BK/L-GN	5301	Camshaft Position Intake Sensor Low Reference 1	I	—
3	0.5	YE/VT	5275	Camshaft Position Intake Sensor 1	I	—

B23 Camshaft Position Sensor (LWN)



2717069

Connector Part Information

Harness Type: Engine
OEM Connector: 13763990
Service Connector: 19299690
Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

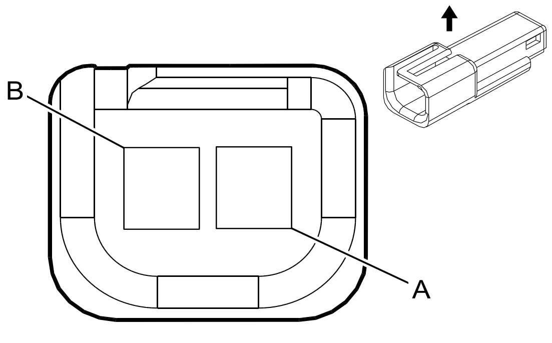
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B23 Camshaft Position Sensor (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/D-BU	5300	Camshaft Position Intake Sensor Control 1	I	—
2	0.5	BK/L-GN	5301	Camshaft Position Intake Sensor Low Reference 1	I	—
3	0.5	YE/VT	5275	Camshaft Position Intake Sensor 1	I	—

B24 Mobile Telephone Microphone



Connector Part Information

Harness Type: Headliner
OEM Connector: 12047663
Service Connector: 13584278
Description: 2-Way M 150 Metri-Pack Series (BK)

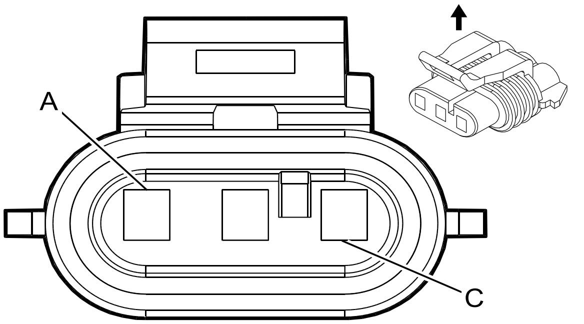
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B24 Mobile Telephone Microphone

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	D-GN	654	Cellular Telephone Microphone Low Reference	I	—
B	0.8	GY	655	Cellular Telephone Microphone Signal	I	—

B26 Crankshaft Position Sensor (L96/LC8)



684840

Connector Part Information

Harness Type: Engine
OEM Connector: 12129946
Service Connector: 88987997
Description: 3-Way F 150 Metri-Pack Series, Sealed (GY)

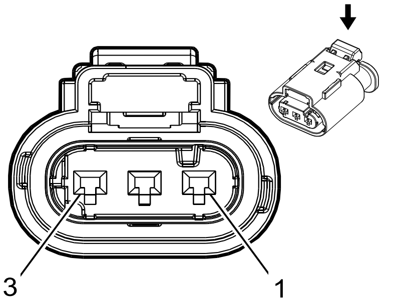
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B26 Crankshaft Position Sensor (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	WH/BK	6271	Crankshaft 60X Sensor Signal	I	—
B	0.8	GY/BK	6272	Crankshaft 60X Sensor Low Reference	I	LV1
C	0.8	PU/WH	6270	Crankshaft 60X Sensor 5V Reference	I	—

B26 Crankshaft Position Sensor (LWN/LV1)



2717069

Connector Part Information

Harness Type: Engine
OEM Connector: 13763990
Service Connector: 19299690
Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

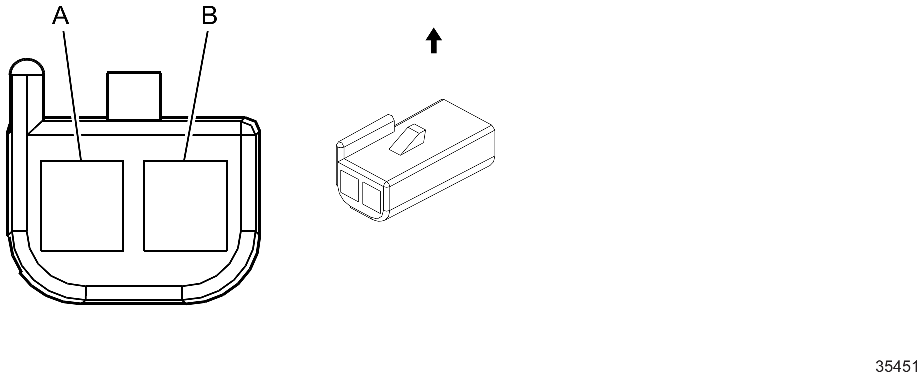
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B26 Crankshaft Position Sensor (LWN/LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN	6271	Crankshaft 60X Sensor Signal	I	LV1
	0.5	VT/D-BU	6270	Crankshaft 60X Sensor 5V Reference	I	LWN
2	0.5	BK/VT	6272	Crankshaft 60X Sensor Low Reference	I	—
3	0.5	VT/D-BU	6270	Crankshaft 60X Sensor 5V Reference	I	LV1
	0.5	L-GN	6271	Crankshaft 60X Sensor Signal	I	LWN

B28F Door Ajar Switch - Right Sliding



Connector Part Information

Harness Type: Body
OEM Connector: 12059251
Service Connector: 12101848
Description: 2-Way F 150 Metri-Pack Series (RD)

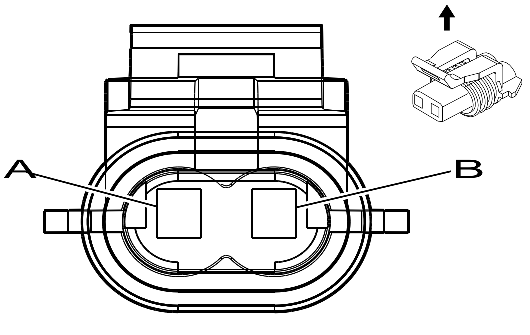
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B28F Door Ajar Switch - Right Sliding

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK	1850	Ground	I	—
B	0.35	YE/BK	1181	Right Rear Door Open Switch Signal	I	—

B33 Engine Coolant Level Switch



655783

Connector Part Information

Harness Type: Engine
OEM Connector: 15324243
Service Connector: 19368034
Description: 2-Way F 150 Metri-Pack Series, Sealed (GY)

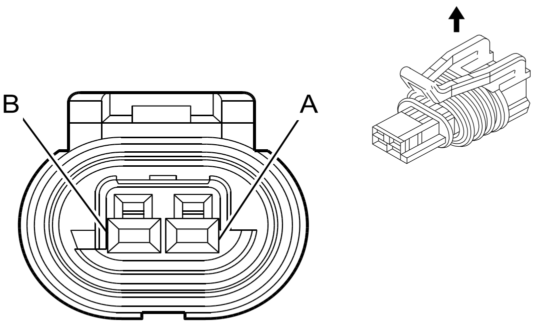
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B33 Engine Coolant Level Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	L-GN	1478	Coolant Level Switch Signal	I	—
B	0.5	BK/WH	351	Signal Ground	I	—

B34 Engine Coolant Temperature Sensor (L96/LC8)



1538760

Connector Part Information

Harness Type: Engine
OEM Connector: 15449028
Service Connector: 88987993
Description: 2-Way F 150 GT Series, Sealed (BK)

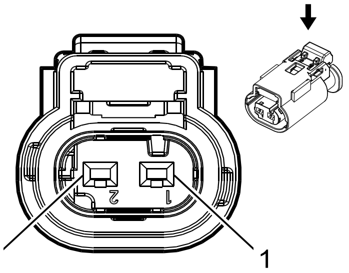
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B34 Engine Coolant Temperature Sensor (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	TN	2761	Coolant Temperature Sensor Low Reference	I	—
B	0.8	YE	410	Engine Coolant Temperature Sensor Signal	I	—

B34 Engine Coolant Temperature Sensor (LV1)



2717066

Connector Part Information

Harness Type: Engine
OEM Connector: 13735326
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

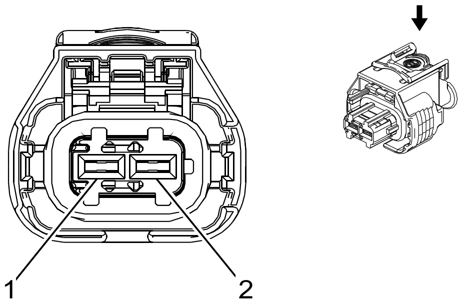
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B34 Engine Coolant Temperature Sensor (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-BU/	410	Engine Coolant Temperature Sensor Signal	I	—
2	0.5	BK/BN	2761	Coolant Temperature Sensor Low Reference	I	—

B34 Engine Coolant Temperature Sensor (LWN)



2577394

Connector Part Information

Harness Type: Engine
OEM Connector: 13930085
Service Connector: 13384371
Description: 2-Way F 2.8 Series, Sealed (BK)

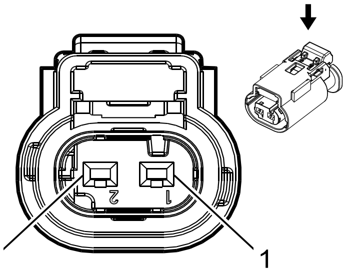
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B34 Engine Coolant Temperature Sensor (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-BU/	410	Engine Coolant Temperature Sensor Signal	I	—
2	0.5	BK/BN	2761	Coolant Temperature Sensor Low Reference	I	—

B35 Engine Oil Level Switch (LV1)



2717066

Connector Part Information

Harness Type: Engine
OEM Connector: 13735326
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

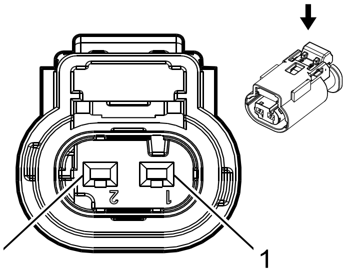
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B35 Engine Oil Level Switch (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK/WH	1551	Signal Ground	I	—
2	0.5	BN/L-GN	1174	Oil Level Switch Signal	I	—

B35 Engine Oil Level Switch (LWN)



2717066

Connector Part Information

Harness Type: Engine
OEM Connector: 13735326
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

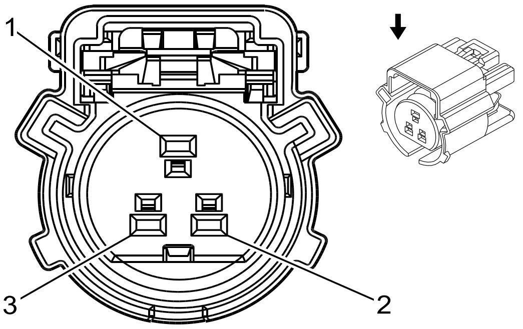
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B35 Engine Oil Level Switch (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/L-GN	1174	Oil Level Switch Signal	I	—
2	0.75	BK/WH	1551	Signal Ground	I	—

B37B Engine Oil Pressure Sensor (L96/LC8)



2159957

Connector Part Information

Harness Type: Engine
OEM Connector: 13589761
Service Connector: 19368110
Description: 3-Way F 150 GT Series, Sealed (BK)

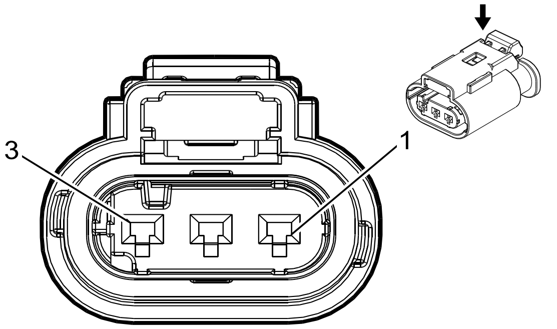
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B37B Engine Oil Pressure Sensor (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.8	TN/WH	331	Oil Pressure Sensor Signal	I	—
2	0.8	GY	2705	Oil Pressure Sensor 5V Reference	I	—
3	0.8	BK	2755	Oil Pressure Sensor Low Reference	I	—

B37B Engine Oil Pressure Sensor (LWN/LV1)



3240107

Connector Part Information

Harness Type: Engine
OEM Connector: 13889776
Service Connector: 19301717
Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

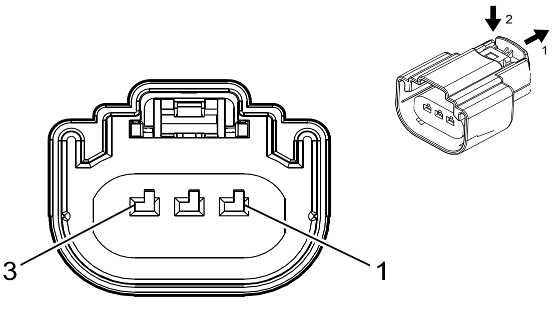
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B37B Engine Oil Pressure Sensor (LWN/LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/BN	331	Oil Pressure Sensor Signal	I	—
2	0.5	BK/VT	2755	Oil Pressure Sensor Low Reference	I	—
3	0.5	WH/RD	2705	Oil Pressure Sensor 5V Reference	I	—

B47 Fuel Pressure Sensor (CUTAWAY)



4569745

Connector Part Information

Harness Type: Chassis
OEM Connector: 33343869
Service Connector: 19179750
Description: 3-Way F 150 MX Series, Sealed (BK)

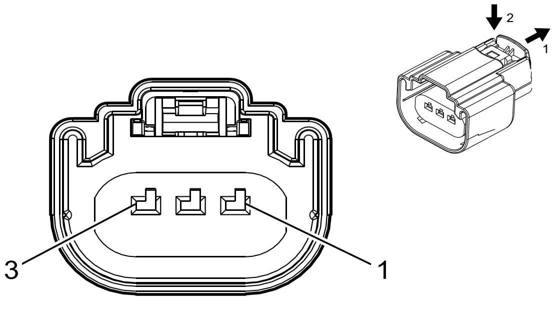
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B47 Fuel Pressure Sensor (CUTAWAY)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5 0.5	BU/WH BN/RD	7446 7445	Fuel Line Pressure Sensor Signal Fuel Line Pressure Sensor 5V Reference	I II	-335/LWN 335-LWN
2	0.5 0.5	BK/YE BK/YE	7447 7447	Fuel Line Pressure Sensor Low Reference Fuel Line Pressure Sensor Low Reference	I II	-335/LWN 335-LWN
3	0.5 0.5	BN/RD BU/WH	7445 7446	Fuel Line Pressure Sensor 5V Reference Fuel Line Pressure Sensor Signal	I II	-335/LWN 335-LWN

B47 Fuel Pressure Sensor (-CUTAWAY)



4569745

Connector Part Information

Harness Type: Chassis
OEM Connector: 33343869
Service Connector: 19179750
Description: 3-Way F 150 MX Series, Sealed (BK)

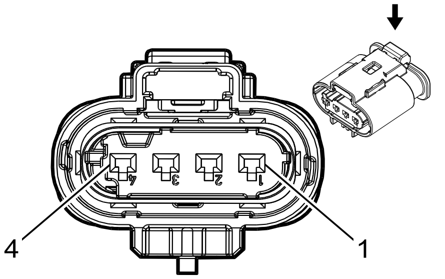
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B47 Fuel Pressure Sensor (-CUTAWAY)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU/WH	7446	Fuel Line Pressure Sensor Signal	I	—
2	0.5	BK/YE	7447	Fuel Line Pressure Sensor Low Reference	I	—
3	0.5	BN/RD	7445	Fuel Line Pressure Sensor 5V Reference	I	—

B47B Fuel Rail Pressure Sensor (LWN)



Connector Part Information

Harness Type: Engine
OEM Connector: 13815341
Service Connector: 13587299
Description: 4-Way F 1.2 Multilock Series, Sealed (BK)

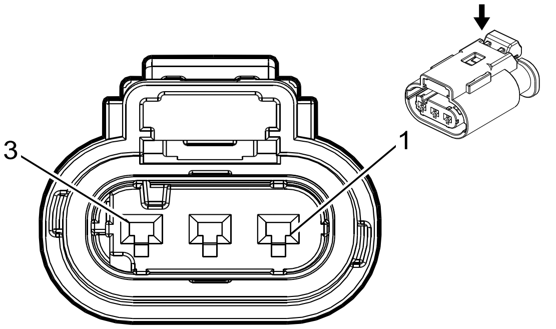
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B47B Fuel Rail Pressure Sensor (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/RD	2917	Fuel Rail Pressure Sensor 5V Reference	I	—
2	0.5	BN/YE	2161	Fuel Rail Pressure Sensor 2 Signal	I	—
3	0.5	BK/L-GN	2919	Fuel Rail Pressure Sensor Low Reference	I	—
4	0.5	D-BU/WH	2918	Fuel Rail Pressure Sensor Signal	I	—

B47B Fuel Rail Pressure Sensor (LV1)



3240107

Connector Part Information

Harness Type: Fuel Injector Jumper
OEM Connector: 10010344
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

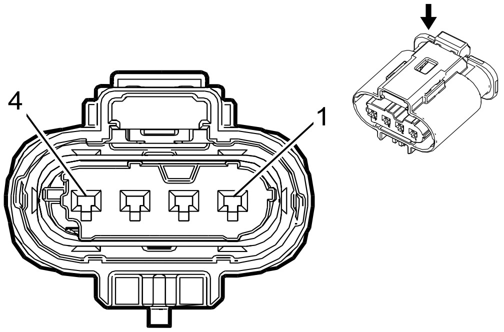
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

B47B Fuel Rail Pressure Sensor (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/L-GN	2919	Fuel Rail Pressure Sensor Low Reference	I	—
2	0.5	D-BU/WH	2918	Fuel Rail Pressure Sensor Signal	I	—
3	0.5	BN/RD	2917	Fuel Rail Pressure Sensor 5V Reference	I	—

B52C Heated Oxygen Sensor - Bank 1 Sensor 1 (L96/LC8)



3240113

Connector Part Information

Harness Type: Engine
OEM Connector: 13869004
Service Connector: 19301716
Description: 4-Way F 1.2 Multilock Series, Sealed (D-GY)

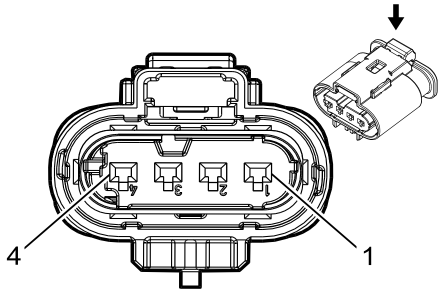
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B52C Heated Oxygen Sensor - Bank 1 Sensor 1 (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.8	GY/WH	3113	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 1	I	—
2	0.8	PK	539	Run/Crank Ignition 1 Voltage	I	—
3	0.8	TN	1664	Heated Oxygen Sensor Low Signal Bank 1 Sensor 1	I	—
4	0.8	PU/WH	1665	Heated Oxygen Sensor High Signal Bank 1 Sensor 1	I	—

B52C Heated Oxygen Sensor - Bank 1 Sensor 1 (LV1)



2717096

Connector Part Information

Harness Type: Engine
OEM Connector: 13815348
Service Connector: 13587298
Description: 4-Way F 1.2 Multilock Series, Sealed (L-GY)

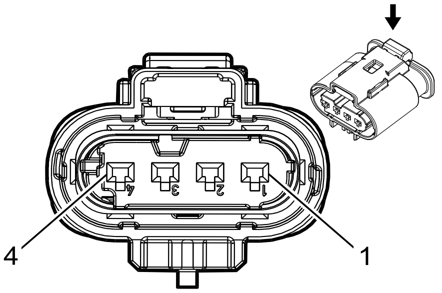
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B52C Heated Oxygen Sensor - Bank 1 Sensor 1 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/BN	3223	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 2	I	—
2	0.5	VT/WH	1539	Run/Crank Ignition 1 Voltage	I	—
3	0.5	YE/D-BU	3221	Heated Oxygen Sensor Low Signal Bank 2 Sensor 2	I	—
4	0.5	VT/L-GN	3220	Heated Oxygen Sensor High Signal Bank 2 Sensor 2	I	—

B52D Heated Oxygen Sensor - Bank 1 Sensor 2



2717096

Connector Part Information

Harness Type: Engine
OEM Connector: 13815348
Service Connector: 13587298
Description: 4-Way F 1.2 Multilock Series, Sealed (L-GY)

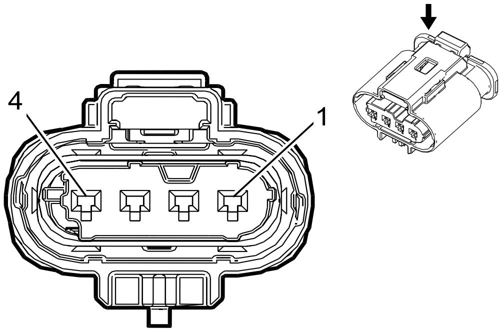
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B52D Heated Oxygen Sensor - Bank 1 Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5 0.8	WH GY/WH	3122 3122	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 2 Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 2	I I	L96/LC8 LV1
2	0.8 0.5	PK/ VT/WH	1539 1539	Run/Crank Ignition 1 Voltage Run/Crank Ignition 1 Voltage	I I	L96/LC8 LV1
3	0.8 0.5	TN/WH WH/YE	1669 3121	Heated Oxygen Sensor Low Signal Bank 1 Sensor 2 Heated Oxygen Sensor Low Signal Bank 1 Sensor 2	I I	L96/LC8 LV1
4	0.8 0.5	PU/WH VT/D-BU	1668 3120	Heated Oxygen Sensor High Signal Bank 1 Sensor 2 Heated Oxygen Sensor High Signal Bank 1 Sensor 2	I I	L96/LC8 LV1

B52E Heated Oxygen Sensor - Bank 2 Sensor 1



3240113

Connector Part Information

Harness Type: Engine
OEM Connector: 13869004
Service Connector: 19301716
Description: 4-Way F 1.2 Multilock Series, Sealed (D-GY)

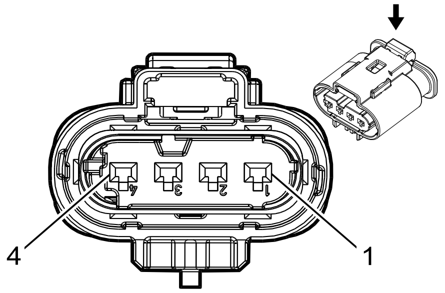
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B52E Heated Oxygen Sensor - Bank 2 Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5 0.5	L-GN L-GN	3212 3212	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 1 Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 1	I I	L96/LC8 LV1
2	0.5 0.5	PK VT/GY	539 539	Run/Crank Ignition 1 Voltage Run/Crank Ignition 1 Voltage	I I	L96/LC8 LV1
3	0.5 0.5	TN YE/WH	1667 3211	Heated Oxygen Sensor Low Signal Bank 2 Sensor 1 Heated Oxygen Sensor Low Signal Bank 2 Sensor 1	I I	L96/LC8 LV1
4	0.5 0.5	PU/ VT/WH	1666 3210	Heated Oxygen Sensor High Signal Bank 2 Sensor 1 Heated Oxygen Sensor High Signal Bank 2 Sensor 1	I I	L96/LC8 LV1

B52F Heated Oxygen Sensor - Bank 2 Sensor 2 (L96/LC8)



2717096

Connector Part Information

Harness Type: Engine
OEM Connector: 13815348
Service Connector: 13587298
Description: 4-Way F 1.2 Multilock Series, Sealed (L-GY)

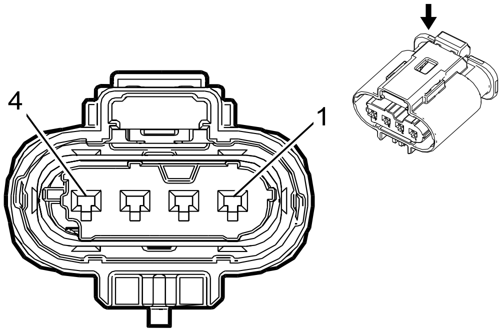
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B52F Heated Oxygen Sensor - Bank 2 Sensor 2 (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.8	OG/WH	3223	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 2	I	—
2	0.8	PK	1539	Run/Crank Ignition 1 Voltage	I	—
3	0.8	TN	1671	Heated Oxygen Sensor Low Signal Bank 2 Sensor 2	I	—
4	0.8	PU/	1670	Heated Oxygen Sensor High Signal Bank 2 Sensor 2	I	—

B52F Heated Oxygen Sensor - Bank 2 Sensor 2 (LV1)



3240113

Connector Part Information

Harness Type: Engine
OEM Connector: 13869004
Service Connector: 19301716
Description: 4-Way F 1.2 Multilock Series, Sealed (D-GY)

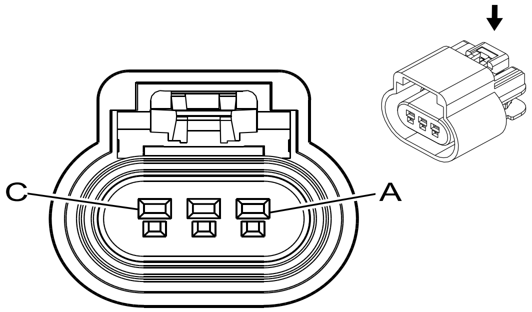
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B52F Heated Oxygen Sensor - Bank 2 Sensor 2 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/BN	3223	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 2	I	—
2	0.5	VT/GY	539	Run/Crank Ignition 1 Voltage	I	—
3	0.5	YE/D-BU	3221	Heated Oxygen Sensor Low Signal Bank 2 Sensor 2	I	—
4	0.5	VT/L-GN	3220	Heated Oxygen Sensor High Signal Bank 2 Sensor 2	I	—

B55 Engine Hood Switch



646415

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 13519047
Service Connector: 19368886
Description: 3-Way F 150 GT Series, Sealed (BK)

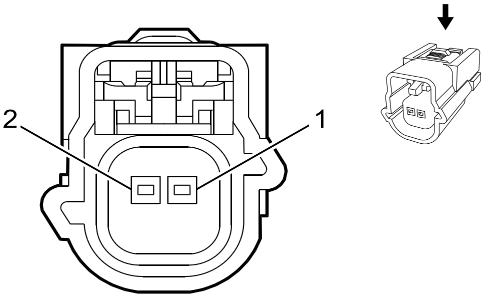
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B55 Engine Hood Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	PK/BK	109	Hood Ajar Switch Signal	I	BTV
B	0.5	VT/BN	5531	Hood Closed Switch Signal	I	BTV
C	0.5	BK	250	Ground	I	BTV

B59 Front Impact Sensor



2179777

Connector Part Information

Harness Type: Inflatable Restraint
OEM Connector: 13593078
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Series, Sealed (L-GY)

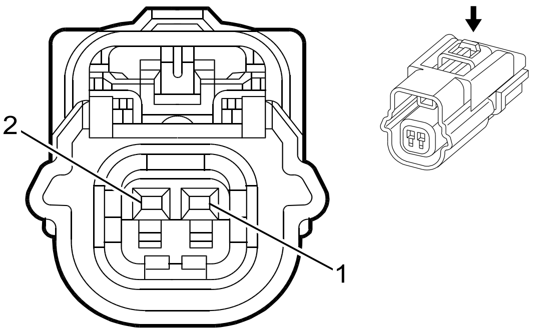
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B59 Front Impact Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/WH	6618	Middle Front Discriminating Sensor Signal	I	—
2	0.5	D-BU/WH	6619	Middle Front Discriminating Sensor Low Reference	I	—

B63LF Side Impact Sensor - Left Front



1664592

Connector Part Information

Harness Type: Air Bag Jumper
OEM Connector: 13528494
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Kaizen Series, Sealed (BK)

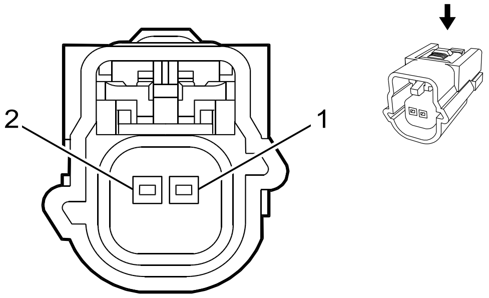
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B63LF Side Impact Sensor - Left Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	2132	Left Front Side Impact Sensing Module Signal	I	—
2	0.5	PU/WH	6628	Left Front Side Impact Sensing Module Low Reference	I	—

B63LR Side Impact Sensor - Left Rear



2179777

Connector Part Information

Harness Type: Air Bag Jumper
OEM Connector: 13610095
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Series, Sealed (D-GY)

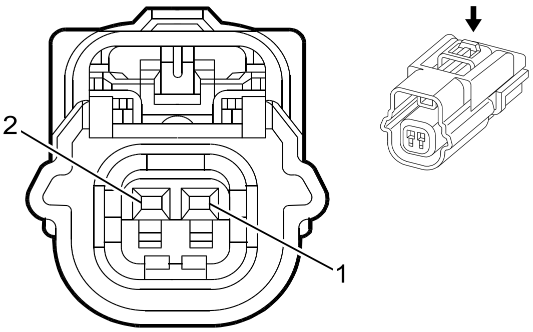
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B63LR Side Impact Sensor - Left Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-GN/WH	6620	Left Middle Side Impact Sensing Module Signal	I	—
2	0.5	GY/BK	6621	Left Middle Side Impact Sensing Module Low Reference	I	—

B63RF Side Impact Sensor - Right Front



1664592

Connector Part Information

Harness Type: Passenger Side Impact Sensor
OEM Connector: 89047381
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Kaizen Series, Sealed (BK)

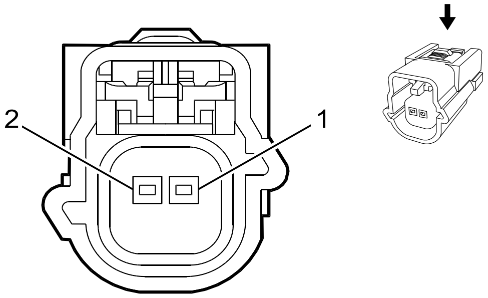
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

B63RF Side Impact Sensor - Right Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	WH	2134	Right Front Side Impact Sensing Module Signal	I	—
2	—	VT/WH	6629	Right Front Side Impact Sensing Module Low Reference	I	—

B63RR Side Impact Sensor - Right Rear



2179777

Connector Part Information

Harness Type: Air Bag Jumper
OEM Connector: 13610095
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Series, Sealed (D-GY)

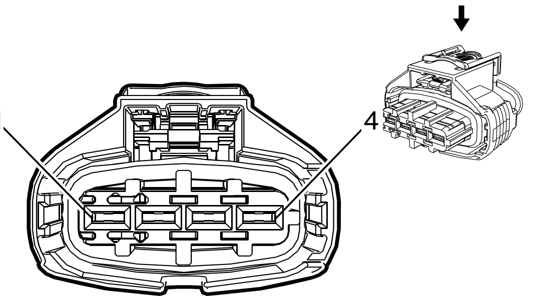
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B63RR Side Impact Sensor - Right Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-BU/BK	6624	Right Middle Side Impact Sensing Module Signal	I	—
2	0.5	L-GN/WH	6625	Right Middle Side Impact Sensing Module Low Reference	I	—

B65 Intake Manifold Pressure and Air Temperature Sensor



Connector Part Information

Harness Type: Intake Manifold Pressure and Air Temperature Sensor Jumper
OEM Connector: 13343438
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 2.8 Series, Sealed (BK)

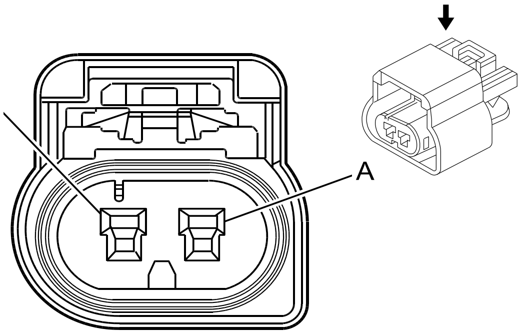
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

B65 Intake Manifold Pressure and Air Temperature Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	469	Manifold Absolute Pressure Sensor Low Reference	I	—
2	—	BN	9348	Induction Air Temperature Sensor 3 Signal	I	—
3	—	GY/RD	2704	Manifold Absolute Pressure Sensor 5V Reference	I	—
4	—	—	432	Manifold Absolute Pressure Sensor Signal	I	—

B68A Knock Sensor 1 (L96/LC8)



1232999

Connector Part Information

Harness Type: Engine
OEM Connector: 15374222
Service Connector: 13580877
Description: 2-Way F 150 GT Series, Sealed (NA)

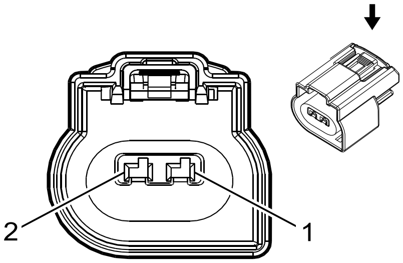
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B68A Knock Sensor 1 (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	D-BU/	496	Knock Sensor Signal 1	I	—
B	0.8	GY	1716	Knock Sensor Low Reference 1	I	—

B68A Knock Sensor 1 (LV1)



2717073

Connector Part Information

Harness Type: Engine
OEM Connector: 13814755
Service Connector: 19301207
Description: 2-Way F 150 MX Series, Sealed (BK)

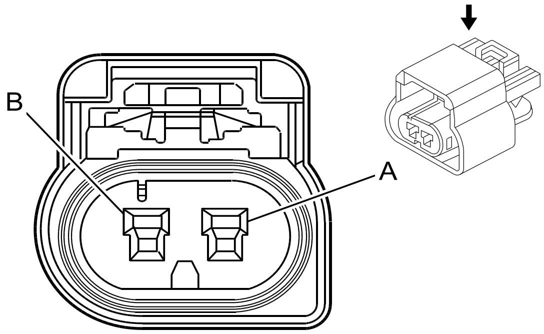
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B68A Knock Sensor 1 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	VT/GY	496	Knock Sensor Signal 1	I	—
2	0.75	GY	1716	Knock Sensor Low Reference 1	I	—

B68B Knock Sensor 2 (L96/LC8)



1232999

Connector Part Information

Harness Type: Engine
OEM Connector: 15374222
Service Connector: 13580877
Description: 2-Way F 150 GT Series, Sealed (NA)

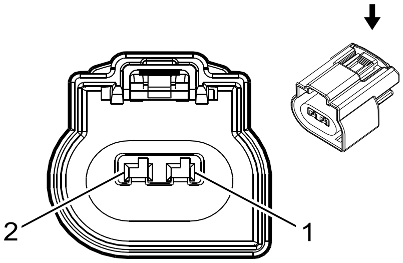
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B68B Knock Sensor 2 (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	L-BU	1876	Knock Sensor Signal 2	I	—
B	0.8	GY	2303	Knock Sensor Low Reference 2	I	—

B68B Knock Sensor 2 (LV1)



2717073

Connector Part Information

Harness Type: Engine
OEM Connector: 13814755
Service Connector: 19301207
Description: 2-Way F 150 MX Series, Sealed (BK)

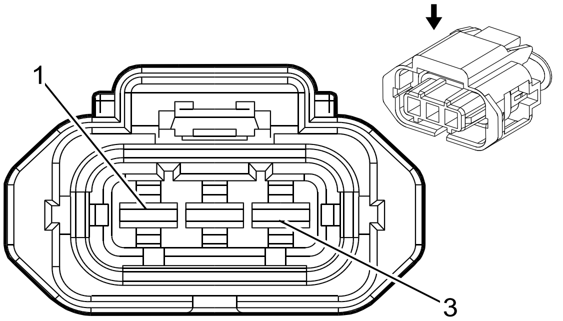
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B68B Knock Sensor 2 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	D-BU/	1876	Knock Sensor Signal 2	I	—
2	0.75	BK/GY	2303	Knock Sensor Low Reference 2	I	—

B74 Manifold Absolute Pressure Sensor (L96/LC8)



1914850

Connector Part Information

Harness Type: Engine
OEM Connector: 13639747
Service Connector: 19181248
Description: 3-Way F 2.8 Junior Power Timer Series, Sealed (BK)

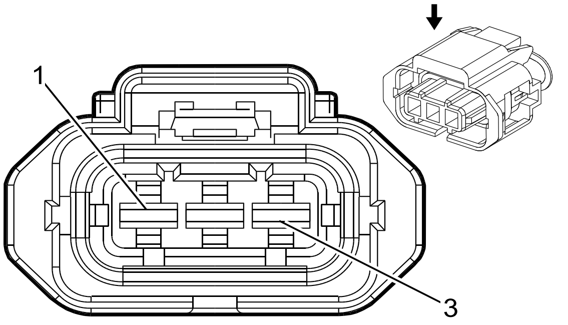
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B74 Manifold Absolute Pressure Sensor (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.8	GY	2704	Manifold Absolute Pressure Sensor 5V Reference	I	—
2	0.8	OG/BK	469	Manifold Absolute Pressure Sensor Low Reference	I	—
3	0.8	L-GN	432	Manifold Absolute Pressure Sensor Signal	I	—

B74 Manifold Absolute Pressure Sensor (LV1)



1914850

Connector Part Information

Harness Type: Engine
OEM Connector: 15397338
Service Connector: 13585845
Description: 3-Way F 2.8 Junior Power Timer Series, Sealed (BK)

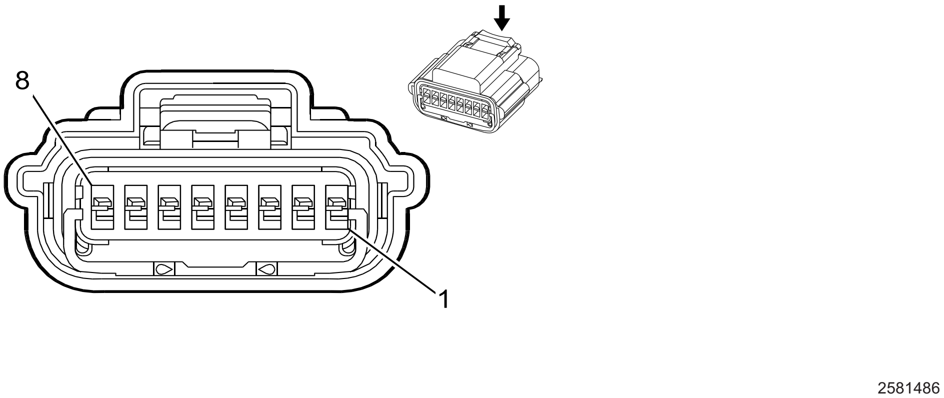
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B74 Manifold Absolute Pressure Sensor (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY	2704	Manifold Absolute Pressure Sensor 5V Reference	I	—
2	0.5	OG/BK	469	Manifold Absolute Pressure Sensor Low Reference	I	—
3	0.5	L-GN	432	Manifold Absolute Pressure Sensor Signal	I	—

B75C Multifunction Intake Air Sensor



Connector Part Information

Harness Type: Engine
OEM Connector: 13774439
Service Connector: 13583440
Description: 8-Way F 0.64 Series, Sealed (BK)

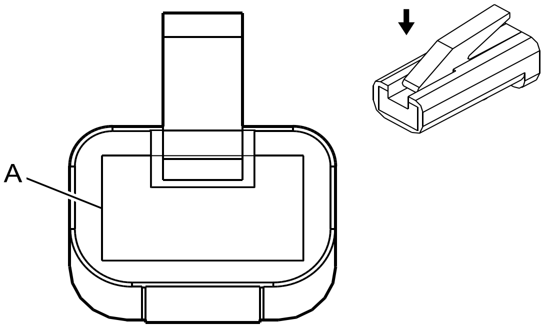
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B75C Multifunction Intake Air Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75 0.5 0.5	BN/VT D-BU/ WH/D-BU	472 6289 6289	Intake Air Temperature Sensor Signal Induction Air Temperature Sensor Signal Induction Air Temperature Sensor Signal	I I I	L96/LC8 LV1 LWN
2	0.75 0.5 0.5	WH/RD WH/RD GY/WH	3201 3201 3201	Throttle Inlet Absolute Pressure Sensor 5V Reference Throttle Inlet Absolute Pressure Sensor 5V Reference Throttle Inlet Absolute Pressure Sensor 5V Reference	I I I	L96/LC8 LV1 LWN
3	0.75 0.5 0.5	BK/VT WH/YE BK/VT	2760 3202 2760	Intake Air Temperature Sensor Low Reference Throttle Inlet Absolute Pressure Sensor Low Reference Intake Air Temperature Sensor Low Reference	I I I	L96/LC8 LV1 LWN
4	0.75 0.5	YE/WH YE/WH	3200 3200	Throttle Inlet Absolute Pressure Sensor Signal Throttle Inlet Absolute Pressure Sensor Signal	I I	L96/LC8 LV1/LWN
5	0.75	VT/WH	1939	Run/Crank Ignition 1 Voltage	I	—
6	0.75 0.5 0.5	L-GN/WH L-GN/WH YE	492 492 492	Mass Air Flow Sensor Signal Mass Air Flow Sensor Signal Mass Air Flow Sensor Signal	I I I	L96/LC8 LV1 LWN
7	0.75	BK/WH	1551	Signal Ground	I	—
8	0.75 0.5 0.5	GY/D-BU D-BU/ BN/GY	7564 7564 4008	Humidity Sensor Signal Humidity Sensor Signal Humidity Sensor Signal	I I I	L96/LC8 LV1 LWN

B80 Park Brake Switch



35348

Connector Part Information

Harness Type: Park Brake Switch Jumper
OEM Connector: 12004267
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 5.6 Series (BK)

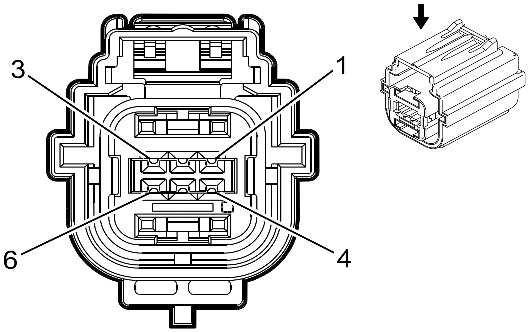
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

B80 Park Brake Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	L-BU	1134	Park Brake Switch Signal	I	—

B87 Rearview Camera (CARGO/PASSENGER)



2133378

Connector Part Information

Harness Type: Rear Cargo Door
OEM Connector: 13629704
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Series, Sealed (GY)

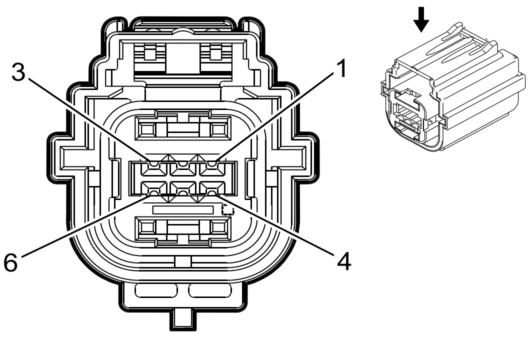
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B87 Rearview Camera (CARGO/PASSENGER)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	7641	Camera Rear Vision Signal +	I	—
2	0.5	Bare	6799	Camera Shield Ground	I	—
3	0.5	L-GN	24	Backup Lamp Control	I	—
4	0.5	L-BU	7642	Camera Rear Vision Signal (-)	I	—
5	0.5	BK	351	Signal Ground	I	—
6	0.5	PK	239	Run/Crank Ignition 1 Voltage	I	—

B87 Rearview Camera (CUTAWAY)



2133378

Connector Part Information

Harness Type: Rearview Camera
OEM Connector: 13629704
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Series, Sealed (GY)

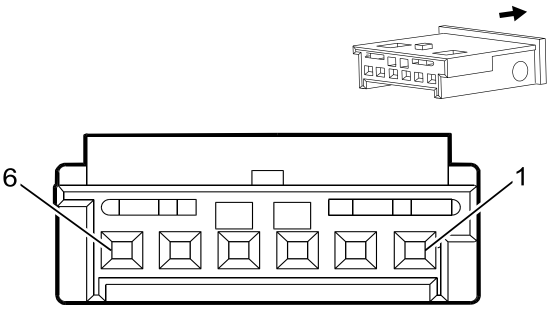
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B87 Rearview Camera (CUTAWAY)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	7641	Camera Rear Vision Signal +	I	—
2	0.5	Bare	6799	Camera Shield Ground	I	—
3	0.5	L-GN	24	Backup Lamp Control	I	—
4	0.5	L-BU	7642	Camera Rear Vision Signal (-)	I	—
5	0.5	BK/WH	351	Signal Ground	I	—
6	0.5	PK	239	Run/Crank Ignition 1 Voltage	I	—

B99 Steering Wheel Angle Sensor



1862024

Connector Part Information

Harness Type: Steering Column
OEM Connector: 19151551
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 Micro-Quadlock Series (BK)

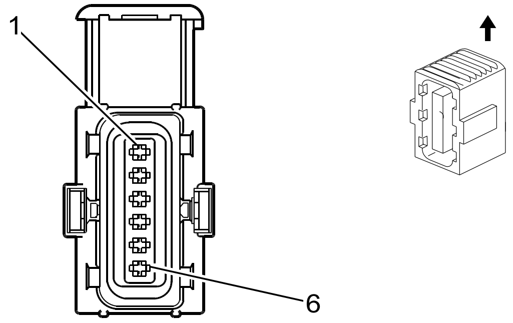
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

B99 Steering Wheel Angle Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	WH	6106	High Speed GMLAN Serial Data (-) 2	I	—
2	—	WH	6106	High Speed GMLAN Serial Data (-) 2	I	—
3	—	BU/YE	6105	High Speed GMLAN Serial Data (+) 2	I	—
4	—	BU/YE	6105	High Speed GMLAN Serial Data (+) 2	I	—
5	—	—	2087	Combined Vehicle Inertial Sensor Supply Voltage	I	—
6	—	BK/WH	351	Signal Ground	I	—

B107 Accelerator Pedal Position Sensor



1334452

Connector Part Information

Harness Type: Accelerator Pedal Position Sensor
OEM Connector: 15383136
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 1.2 Micro-Timer Series, Sealed (BK)

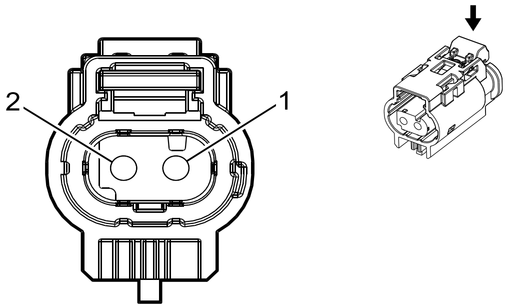
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Available	No Tool Required	Not Available	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B107 Accelerator Pedal Position Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	TN	1274	Accelerator Pedal Position 5V Reference 2	II	—
2	0.35	WH/BK	1164	Accelerator Pedal Position 5V Reference 1	II	—
3	0.35	D-BU	1161	Accelerator Pedal Position Signal 1	II	—
4	0.35 0.35	BK/D-BU BN	1271 1271	Accelerator Pedal Position Low Reference 1 Accelerator Pedal Position Low Reference 1	I II	LV1 -LV1
5	0.35	PU	1272	Accelerator Pedal Position Low Reference 2	II	—
6	0.35	L-BU	1162	Accelerator Pedal Position Signal 2	II	—

B130A Exhaust Gas Recirculation Temperature Sensor 1



3747581

Connector Part Information

Harness Type: Engine
OEM Connector: 33226772
Service Connector: 19332719
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

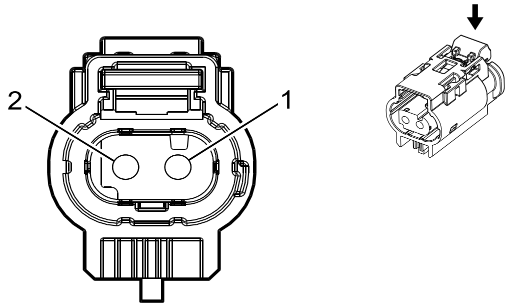
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B130A Exhaust Gas Recirculation Temperature Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/D-BU	6274	Exhaust Gas Recirculation Temperature Sensor Low Reference	I	—
2	0.5	WH/BN	3237	Exhaust Gas Recirculation Temperature Sensor Signal	I	—

B130B Exhaust Gas Recirculation Temperature Sensor 2



3747581

Connector Part Information

Harness Type: Engine
OEM Connector: 33180624
Service Connector: 19332628
Description: 2-Way F 1.2 Multilock Series, Sealed (GY)

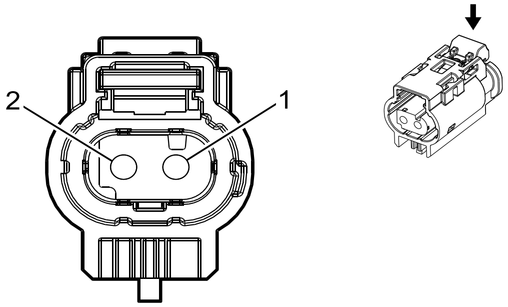
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B130B Exhaust Gas Recirculation Temperature Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/YE	6275	Exhaust Gas Recirculation Temperature Sensor 2 Low Reference	I	—
2	0.5	YE/L-GN	3236	Exhaust Gas Recirculation Temperature Sensor 2 Signal	I	—

B131A Exhaust Temperature Sensor 1



3747581

Connector Part Information

Harness Type: Engine
OEM Connector: 33226772
Service Connector: 19332719
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

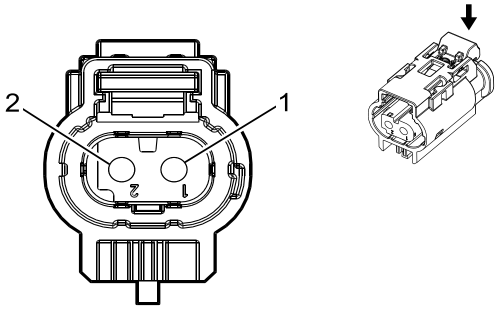
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B131A Exhaust Temperature Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/BN	6782	Exhaust Gas Temperature Sensor 1 Low Reference	I	—
2	0.5	D-BU/WH	5277	Exhaust Gas Temperature Sensor 1	I	—

B131B Exhaust Temperature Sensor 2



3747580

Connector Part Information

Harness Type: Engine
OEM Connector: 33159713
Service Connector: 19332627
Description: 2-Way F 1.2 Multilock Series, Sealed (GY)

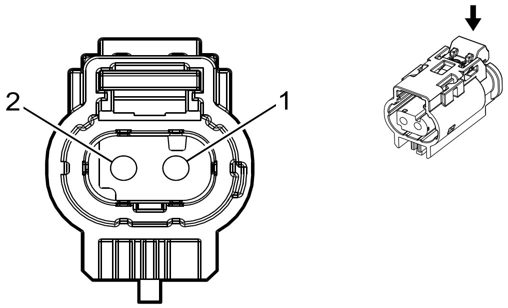
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B131B Exhaust Temperature Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/D-BU	6783	Exhaust Gas Temperature Sensor 2 Low Reference	I	—
2	0.5	D-BU/L-GN	5377	Exhaust Gas Temperature Sensor 2	I	—

B131C Exhaust Temperature Sensor 3



3747581

Connector Part Information

Harness Type: Chassis
OEM Connector: 33180624
Service Connector: 19332628
Description: 2-Way F 1.2 Multilock Series, Sealed (GY)

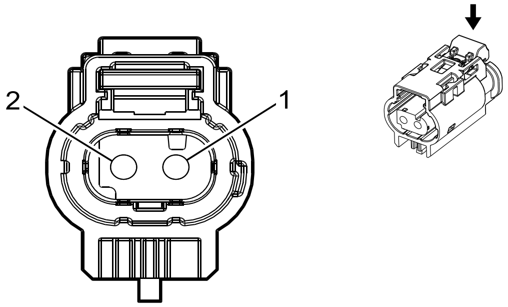
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B131C Exhaust Temperature Sensor 3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/L-GN	3657	Exhaust Gas Temperature Sensor 3 Low Reference	I	—
2	0.5	GY/L-GN	5378	Exhaust Gas Temperature Sensor 3	I	—

B131D Exhaust Temperature Sensor 4



3747581

Connector Part Information

Harness Type: Chassis
OEM Connector: 33226772
Service Connector: 19332719
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

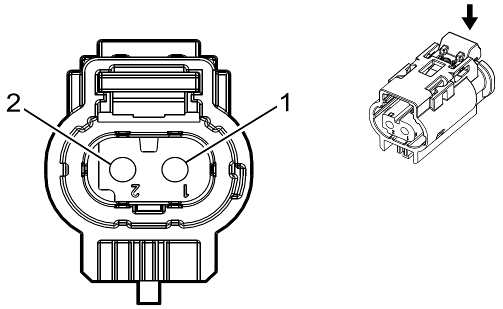
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B131D Exhaust Temperature Sensor 4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/GY	3659	Exhaust Gas Temperature Sensor 4 Low Reference	I	—
2	0.5	VT/BN	3658	Exhaust Gas Temperature Sensor 4 Signal	I	—

B131E Exhaust Temperature Sensor 5



3747580

Connector Part Information

Harness Type: Chassis
OEM Connector: 33159713
Service Connector: 19332627
Description: 2-Way F 1.2 Multilock Series, Sealed (GY)

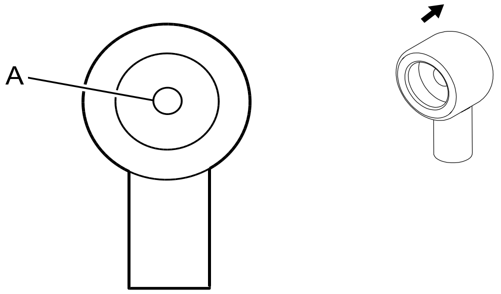
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B131E Exhaust Temperature Sensor 5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/VT	3661	Exhaust Gas Temperature Sensor 5 Low Reference	I	—
2	0.5	D-BU/GY	3660	Exhaust Gas Temperature Sensor 5 Signal	I	—

B133 Brake Booster Fluid Flow Alarm Switch X1



2004808

Connector Part Information

Harness Type: Brake Fluid Level Switch
OEM Connector: 6288440
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F Grip Series (BK)

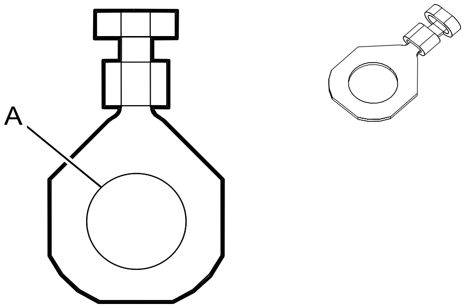
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B133 Brake Booster Fluid Flow Alarm Switch X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	L-BU/BK	1928	Brake Booster Fluid Flow Switch Signal	I	—

B133 Brake Booster Fluid Flow Alarm Switch X2



3240148

Connector Part Information

Harness Type: Brake Fluid Level Switch
OEM Connector: 12103516
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

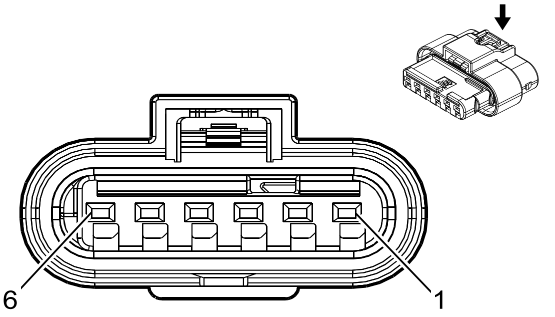
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

B133 Brake Booster Fluid Flow Alarm Switch X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BK/WH	351	Signal Ground	I	—

B136 Exhaust Particulate Matter Sensor



3747582

Connector Part Information

Harness Type: Chassis
OEM Connector: 33226734
Service Connector: 19354530
Description: 6-Way F 1.2 MCON-LL Series, Sealed (BN)

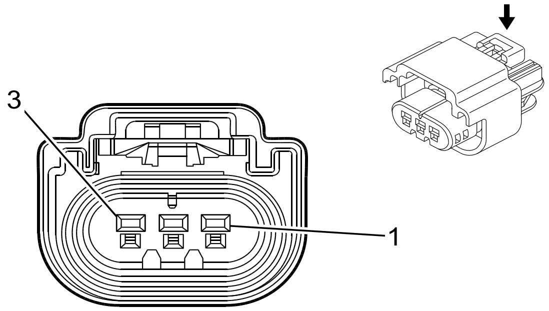
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B136 Exhaust Particulate Matter Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	BK	150	Ground	I	—
2	0.5	WH	7494	High Speed GMLAN Serial Data (-)3	I	—
3	0.5	WH	7494	High Speed GMLAN Serial Data (-)3	I	—
4	0.5	D-BU/BK	7493	High Speed GMLAN Serial Data (+)3	I	—
5	0.5	D-BU/BK	7493	High Speed GMLAN Serial Data (+)3	I	—
6	1	GY	3672	NOx Sensor 2 Control	I	—

B150 Fuel Tank Pressure Sensor



2004806

Connector Part Information

Harness Type: Chassis
OEM Connector: 13522407
Service Connector: 19179274
Description: 3-Way F 150 GT Series, Sealed (BK)

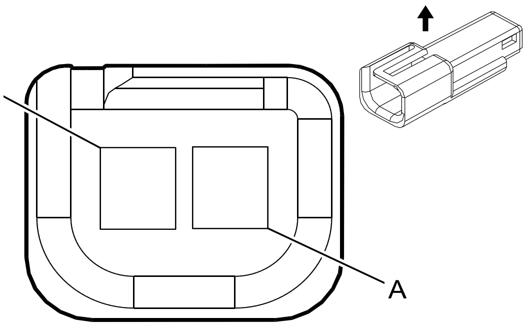
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B150 Fuel Tank Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU/WH	890	Fuel Tank Pressure Sensor Signal	I	—
2	0.5	BK/BN	2759	Fuel Tank Pressure Sensor Low Reference	I	—
3	0.5	YE/RD	2709	Fuel Tank Pressure Sensor 5V Reference	I	—

B153D Seat Belt Buckle - Driver



35441

Connector Part Information

Harness Type: Driver Seat
OEM Connector: 12047663
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 150 Metri-Pack Series (BK)

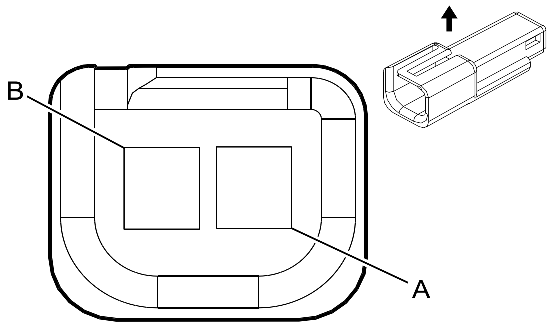
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

B153D Seat Belt Buckle - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	PK	5057	Seat Position Switch Low Reference	I	—
B	—	TN/WH	238	Driver Seat Belt Switch Signal	I	—

B153P Seat Belt Buckle - Passenger



35441

Connector Part Information

Harness Type: Passenger Seat
OEM Connector: 12047663
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 150 Metri-Pack Series (BK)

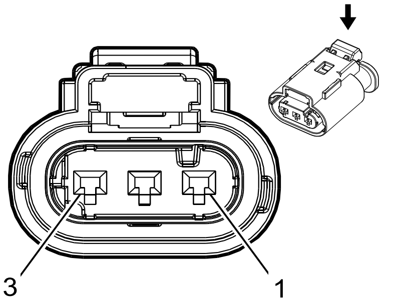
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

B153P Seat Belt Buckle - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	PK	1361	Passenger Seat Belt Switch Low Reference	I	—
B	—	OG	1362	Passenger Seat Belt Switch Signal	I	—

B154 Diesel Particulate Filter Exhaust Differential Pressure Sensor



2717069

Connector Part Information

Harness Type: Chassis
OEM Connector: 13763990
Service Connector: 19299690
Description: 3-Way F 1.2 Multilock Series, Sealed (BK)

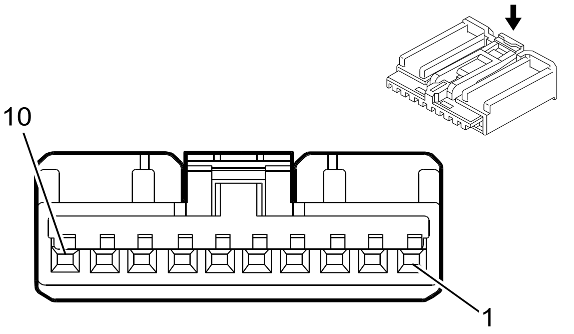
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B154 Diesel Particulate Filter Exhaust Differential Pressure Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-BU/	6053	Exhaust Pressure Sensor Signal 1	I	—
2	0.5	BK/YE	6055	Exhaust Pressure Sensor Low Reference 1	I	—
3	0.5	WH/RD	6054	Exhaust Pressure Sensor 5V Reference 1	I	—

B174W Frontview Camera - Windshield



1862241

Connector Part Information

Harness Type: Headliner
OEM Connector: 13574592
Service Connector: 13576634
Description: 10-Way F 0.64 Kaizen Series (BK)

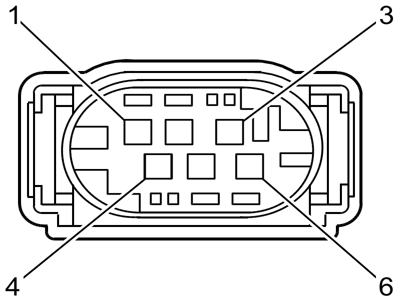
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575742	J-35616-64B (LT BU)	J-38125-215A	SAIT-A03T-M064	Yazaki 14	P	P

B174W Frontview Camera - Windshield

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK	1850	Ground	I	—
2	—	—	—	Not Occupied	—	—
3	0.5	RD/L-GN	3140	Battery Positive Voltage	I	—
4	0.5	WH	3152	Lane Departure Warning Indicator Control	I	—
5 - 6	—	—	—	Not Occupied	—	—
7	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.5	GY/WH	3153	Lane Departure Warning Disable Switch Signal	I	—

B176 Multi-axis Acceleration Sensor Module



831393

Connector Part Information

Harness Type: Body
OEM Connector: 15355474
Service Connector: 15306420
Description: 6-Way F 0.64 Micro-Quadlock Series, Sealed (BK)

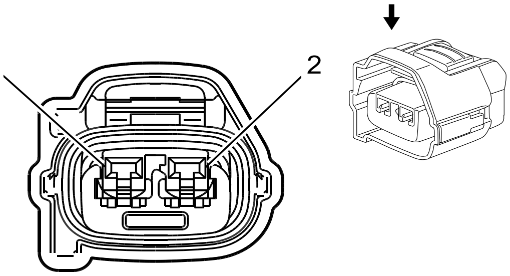
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B176 Multi-axis Acceleration Sensor Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/BN	6045	Steering Angle Sensor Low Reference	I	—
2 - 3	—	—	—	Not Occupied	—	—
4	0.5	BU/YE	6105	High Speed GMLAN Serial Data (+) 2	I	—
5	0.5	WH	6106	High Speed GMLAN Serial Data (-) 2	I	—
6	0.5	BK/WH	2751	Signal Ground	I	—

B193A Charge Air Cooler Inlet Temperature Sensor



2388842

Connector Part Information

Harness Type: Engine
OEM Connector: 15401053
Service Connector: 19368660
Description: 2-Way F 090 Series, Sealed (D-GY)

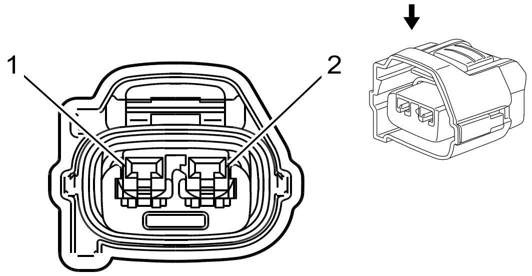
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-18 (BK)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B193A Charge Air Cooler Inlet Temperature Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN	3683	Charge Air Cooler Inlet Temperature Sensor Signal	I	—
2	0.5	YE/BK	3682	Charge Air Cooler Inlet Temperature Sensor Low Reference	I	—

B193B Charge Air Cooler Outlet Temperature Sensor



2388842

Connector Part Information

Harness Type: Engine
OEM Connector: 15401053
Service Connector: 19368660
Description: 2-Way F 090 Series, Sealed (D-GY)

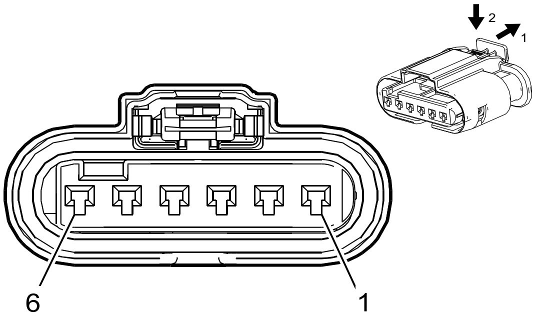
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-18 (BK)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B193B Charge Air Cooler Outlet Temperature Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN	3681	Charge Air Cooler Outlet Temperature Sensor Signal	I	—
2	0.5	YE/D-BU	3680	Charge Air Cooler Outlet Temperature Sensor Low Reference	I	—

B195A Nitrogen Oxides Sensor 1



3960142

Connector Part Information

Harness Type: Engine
OEM Connector: 33230495
Service Connector: 19368560
Description: 6-Way F 1.2 MCON-LL Series, Sealed (BK)

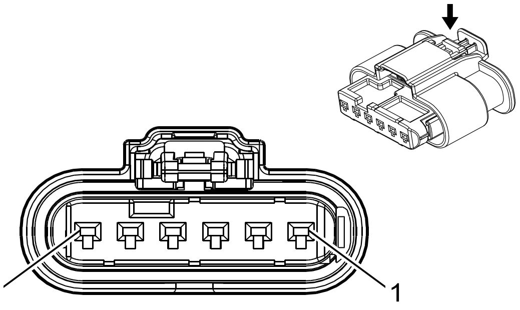
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B195A Nitrogen Oxides Sensor 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	GY	3672	NOx Sensor 2 Control	I	—
2	0.5	D-BU/BK	7493	High Speed GMLAN Serial Data (+)3	I	—
3	0.5	D-BU/BK	7493	High Speed GMLAN Serial Data (+)3	I	—
4	0.5	WH	7494	High Speed GMLAN Serial Data (-)3	I	—
5	0.5	WH	7494	High Speed GMLAN Serial Data (-)3	I	—
6	1	BK	150	Ground	I	—

B195B Nitrogen Oxides Sensor 2



4455148

Connector Part Information

Harness Type: Chassis
OEM Connector: 33226735
Service Connector: 19368561
Description: 6-Way F 1.2 MCON-LL Series, Sealed (GY)

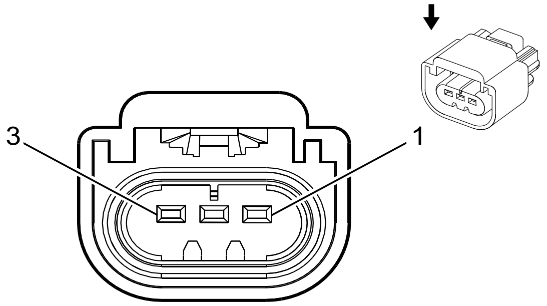
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B195B Nitrogen Oxides Sensor 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	GY	3672	NOx Sensor 2 Control	I	—
2	0.5	D-BU/BK	7493	High Speed GMLAN Serial Data (+)3	I	—
3 - 4	—	—	—	Not Occupied	—	—
5	0.5	WH	7494	High Speed GMLAN Serial Data (-)3	I	—
6	1	BK	150	Ground	I	—

B198 Fuel Composition Sensor (FHS)



2422393

Connector Part Information

Harness Type: Chassis
OEM Connector: 13511132
Service Connector: 19368712
Description: 3-Way F 150 GT Series, Sealed (BN)

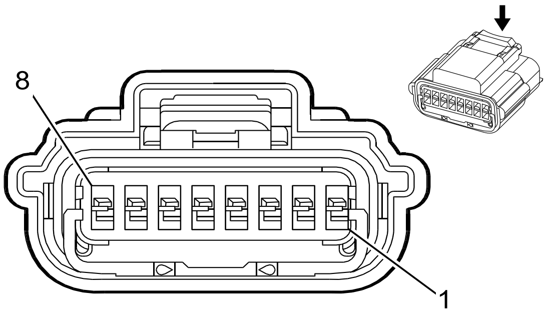
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

B198 Fuel Composition Sensor (FHS)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	5294	Powertrain Main Relay Fused Supply 5	I	—
2	—	BK/WH	1551	Signal Ground	I	—
3	—	WH	1579	Fuel Temperature/Composition Signal	I	—

B218L Side Object Sensor Module - Left



2581486

Connector Part Information

Harness Type: Rear Fascia
OEM Connector: 15543347
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 0.64 Series, Sealed (BK)

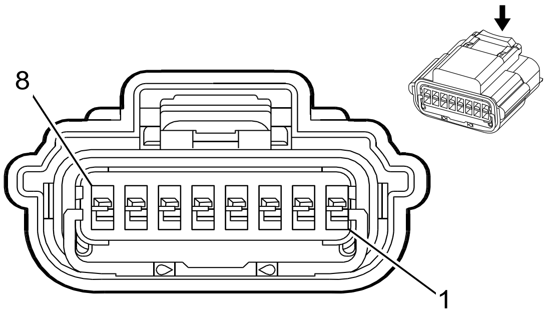
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B218L Side Object Sensor Module - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.5	L-GN	5060	Low Speed GMLAN Serial Data	I	—
3	—	—	—	Not Occupied	—	—
4	0.5	GY/YE	5853	Driver Side Object Detection LED Signal 1	I	—
5	0.5	RD/L-GN	3140	Battery Positive Voltage	I	—
6	—	—	—	Not Occupied	—	—
7	0.5	L-GN/BK	5060	Low Speed GMLAN Serial Data	I	—
8	0.5	BK	2150	Ground	I	—

B218R Side Object Sensor Module - Right



2581486

Connector Part Information

Harness Type: Rear Fascia
OEM Connector: 15543346
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 0.64 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B218R Side Object Sensor Module - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	BK	2150	Ground	I	—
4	0.5	GY	5861	Passenger Side Object Detection LED Signal 1	I	—
5	0.5	RD/L-GN	3140	Battery Positive Voltage	I	—
6	—	—	—	Not Occupied	—	—
7	0.5	L-GN/BK	5060	Low Speed GMLAN Serial Data	I	—
8	0.5	BK	2150	Ground	I	—

B295 Reductant Quality Sensor

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Connector Part Information

Harness Type: Emission Reductant Fluid Tank Reservoir
OEM Connector: 13893234
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way

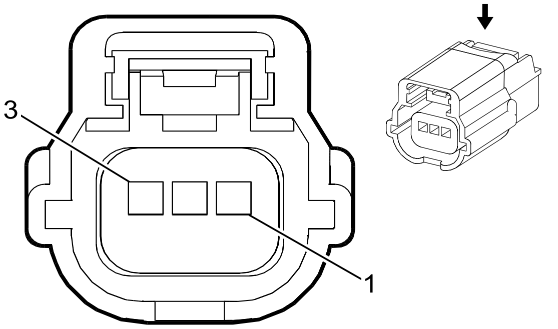
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

B295 Reductant Quality Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	YE	53	Diesel Exhaust Fluid Quality Signal	I	—
2	—	GN	7487	Sensor Signal	I	—
3	—	OG	7285	Diesel Exhaust Fluid Liquid Quality Temperature Sensor Low Reference	I	—

B306E Parking Assist Sensor - Rear Left Outer



Connector Part Information

Harness Type: Rear Fascia
OEM Connector: 13525738
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 0.64 Series, Sealed (BK)

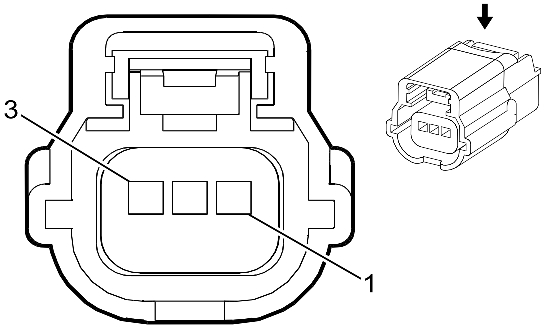
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B306E Parking Assist Sensor - Rear Left Outer

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/WH	2374	Object Sensor Control	I	UD7
2	0.5	BK/GY	2379	Object Sensor Low Reference	I	—
3	0.5	YE	2375	Left Rear Corner Object Sensor Signal	I	—

B306F Parking Assist Sensor - Rear Left Middle



1664596

Connector Part Information

Harness Type: Rear Fascia
OEM Connector: 13525738
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 0.64 Series, Sealed (BK)

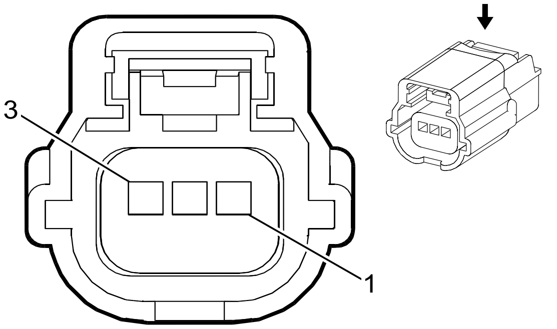
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B306F Parking Assist Sensor - Rear Left Middle

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/WH	2374	Object Sensor Control	I	UD7
2	0.5	BK/GY	2379	Object Sensor Low Reference	I	—
3	0.5	YE/D-BU	2376	Left Rear Middle Object Sensor Signal	I	UD7

B306G Parking Assist Sensor - Rear Right Middle



1664596

Connector Part Information

Harness Type: Rear Fascia
OEM Connector: 13525738
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 0.64 Series, Sealed (BK)

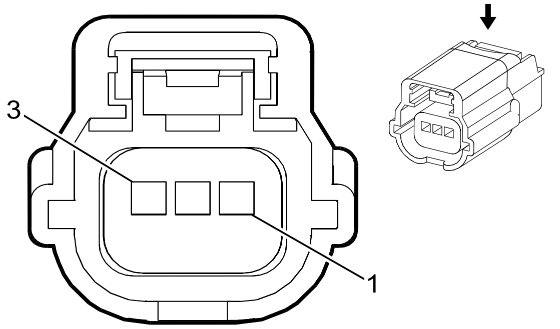
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B306G Parking Assist Sensor - Rear Right Middle

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/WH	2374	Object Sensor Control	I	—
2	0.5	BK/GY	2379	Object Sensor Low Reference	I	UD7
3	0.5	YE/WH	2377	Right Rear Middle Object Sensor Signal	I	UD7

B306H Parking Assist Sensor - Rear Right Outer



1664596

Connector Part Information

Harness Type: Rear Fascia
OEM Connector: 13525738
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F 0.64 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

B306H Parking Assist Sensor - Rear Right Outer

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/WH	2374	Object Sensor Control	I	—
2	0.5	BK/GY	2379	Object Sensor Low Reference	I	—
3	0.5	YE/VT	2378	Right Rear Corner Object Sensor Signal	I	—

C1 Battery ((-))

—

Connector Part Information

Harness Type: Negative Battery Cable
OEM Connector: 12129465
Service Connector: Service by Harness - See Part Catalog
Description: —

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

C1 Battery ((-))

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	19	BK	50	Ground	I	—
	32	BK	50	Ground		—

C1 Battery ((+))

—

Connector Part Information

Harness Type: Positive Battery Cable
OEM Connector: 12129465
Service Connector: Service by Harness - See Part Catalog
Description: —

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

C1 Battery ((+))

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	32	RD	1	Unfused Battery Positive Voltage	I	—
	8	RD/BK	1	Unfused Battery Positive Voltage		—

C1B Battery - Auxiliary (L96/LC8)

—

Connector Part Information

Harness Type: Positive Battery Cable
OEM Connector: 12146464
Service Connector: Service by Cable Assembly — See Part Catalog
Description: —

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

C1B Battery - Auxiliary (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	13	RD	1	Unfused Battery Positive Voltage	I	—

C1B Battery - Auxiliary (LV1+TP2)

—

Connector Part Information

Harness Type: Positive Battery Cable
OEM Connector: 12146464
Service Connector: Service by Cable Assembly — See Part Catalog
Description: —

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

C1B Battery - Auxiliary (LV1+TP2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	13	RD	1	Unfused Battery Positive Voltage	I	—

C1B Battery - Auxiliary (LWN)

—

Connector Part Information

Harness Type: Positive Battery Cable
OEM Connector: 12146466
Service Connector: Service by Cable Assembly — See Part Catalog
Description: —

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

C1B Battery - Auxiliary (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	32	RD	1	Unfused Battery Positive Voltage	I	—

C1B Battery - Auxiliary (LWN+TP2)

—

Connector Part Information

Harness Type: Positive Battery Cable
OEM Connector: 12146464
Service Connector: Service by Cable Assembly — See Part Catalog
Description: —

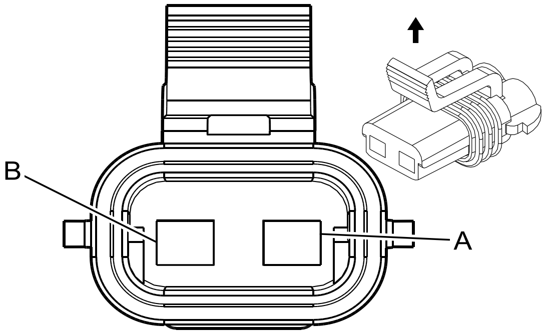
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

C1B Battery - Auxiliary (LWN+TP2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	13	RD	1	Unfused Battery Positive Voltage	I	—

E2LF Side Marker Lamp - Left Front



Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 15300027
Service Connector: 12101855
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

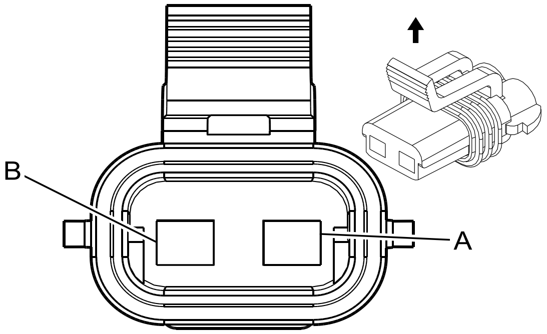
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E2LF Side Marker Lamp - Left Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	GY/BN	2309	Front Park Lamp Control	I	—
B	0.5	BK	250	Ground	I	—

E2RF Side Marker Lamp - Right Front



68721

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 15300027
Service Connector: 12101855
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

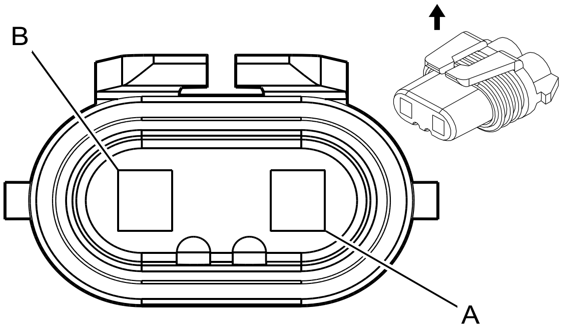
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E2RF Side Marker Lamp - Right Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	GY/BN	2309	Front Park Lamp Control	I	—
B	0.5	BK	650	Ground	I	—

E4E Headlamp - Left High Beam (V22)



684797

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 12059183
Service Connector: 12101898
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

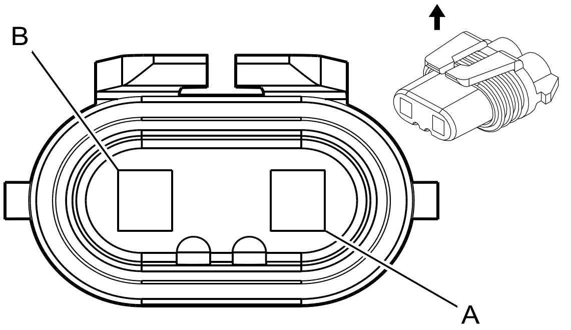
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E4E Headlamp - Left High Beam (V22)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	D-GN/WH	711	Left Headlamp High Beam Control	I	V22
	0.75	WH	711	Left Headlamp High Beam Control	I	-V22
B	0.8	BK	250	Ground	I	V22
	0.75	BK	250	Ground	I	-V22

E4F Headlamp - Right High Beam (V22)



684797

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 12059183
Service Connector: 12101898
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

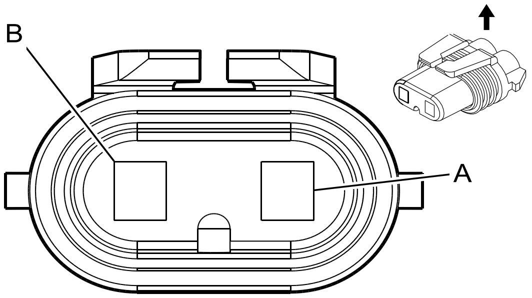
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E4F Headlamp - Right High Beam (V22)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	WH	311	Right Headlamp High Beam Control	I	—
B	0.75	BK	650	Ground	I	—

E4G Headlamp - Left Low Beam (V22)



684796

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 12059181
Service Connector: 19301866
Description: 2-Way F 280 Metri-Pack Series, Sealed (GY)

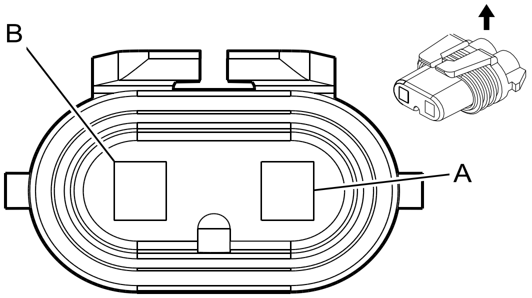
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E4G Headlamp - Left Low Beam (V22)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	YE	712	Left Headlamp Low Beam Control	I	—
B	0.8 0.75	BK BK	250 250	Ground Ground	I I	V22 -V22

E4H Headlamp - Right Low Beam (V22)



684796

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 12059181
Service Connector: 19301866
Description: 2-Way F 280 Metri-Pack Series, Sealed (GY)

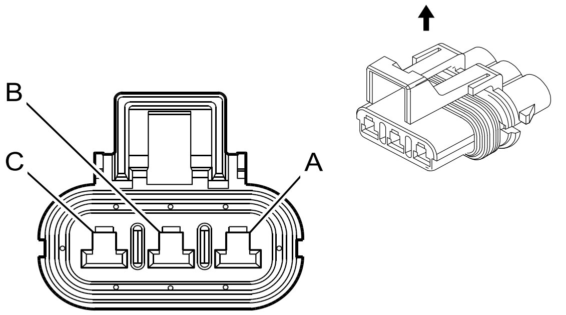
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E4H Headlamp - Right Low Beam (V22)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	YE	312	Right Headlamp Low Beam Control	I	V22
	0.8	TN/WH	312	Right Headlamp Low Beam Control	I	-V22
B	0.8	BK	650	Ground	I	V22
	0.75	BK	650	Ground	I	-V22

E4N Park/Turn Signal Lamp - Left



847206

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 12040977
Service Connector: 12085492
Description: 3-Way F 280 Metri-Pack Series, Sealed (BK)

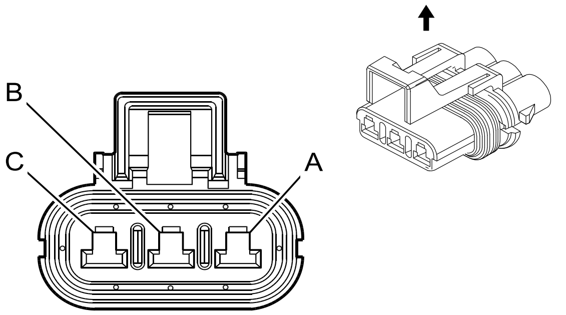
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E4N Park/Turn Signal Lamp - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	D-BU/WH	1314	Left Front Turn Signal Lamp Control	I	—
B	0.5	GY/BN	2309	Front Park Lamp Control	I	—
C	0.5	BK	250	Ground	I	—

E4P Park/Turn Signal Lamp - Right



847206

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 12040977
Service Connector: 12085492
Description: 3-Way F 280 Metri-Pack Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E4P Park/Turn Signal Lamp - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.75	L-GN/VT	1315	Right Front Turn Signal Lamp Control	I	—
B	0.5	GY/BN	2309	Front Park Lamp Control	I	—
C	0.5	BK	650	Ground	I	—

E5A Backup Lamp - Left

—

Connector Part Information

Harness Type: Backup Lamp
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

E5A Backup Lamp - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	L-GN	24	Backup Lamp Control	I	—
G	—	BK	850	Ground	I	—

E5B Backup Lamp - Right

—

Connector Part Information

Harness Type: Backup Lamp
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

E5B Backup Lamp - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	L-GN	24	Backup Lamp Control	I	—
G	—	BK	1050	Ground	I	—

E5S Tail/Stop and Turn Signal Lamp - Left

—

Connector Part Information

Harness Type: Tail/Stop and Turn Signal Lamp
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

E5S Tail/Stop and Turn Signal Lamp - Left

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	YE	618	Left Rear Turn Signal Lamp Control	I	—
B	—	BN	2509	Left Rear Park Lamp Control	I	—
G	—	BK	850	Ground	I	—

E5T Tail/Stop and Turn Signal Lamp - Right

—

Connector Part Information

Harness Type: Tail/Stop and Turn Signal Lamp
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way

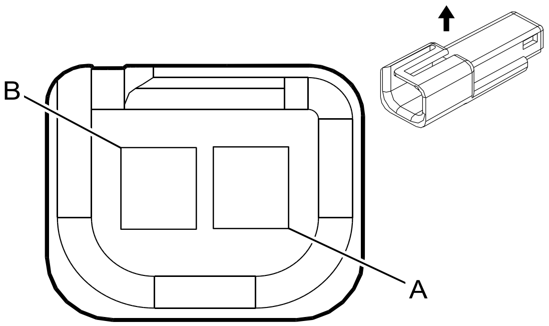
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

E5T Tail/Stop and Turn Signal Lamp - Right

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	D-GN	619	Right Rear Turn Signal Lamp Control	I	—
B	—	BN	2609	Right Rear Park Lamp Control	I	—
G	—	BK	1050	Ground	I	—

E6 Center High Mounted Stop Lamp



35441

Connector Part Information

Harness Type: CHMSL
OEM Connector: 12047663
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 150 Metri-Pack Series (BK)

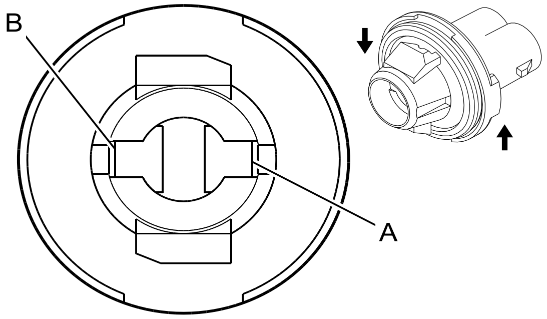
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

E6 Center High Mounted Stop Lamp

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	L-BU	1320	CHMSL Control	I	—
B	—	BK	850	Ground	I	—

E7 License Plate Lamp



Connector Part Information

Harness Type: Rear Cargo Door
OEM Connector: 15324946
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F Lamp Socket Wedge Base, Type W-2 (D-GY)

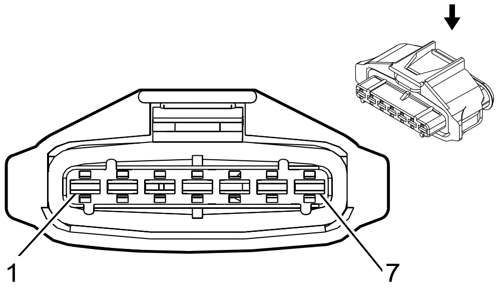
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

E7 License Plate Lamp

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BN	2509	Left Rear Park Lamp Control	I	—
B	0.5	BK	1050	Ground	I	—

E11A Fuel Heater/Water in Fuel Sensor



2537256

Connector Part Information

Harness Type: Chassis
OEM Connector: 10774827
Service Connector: 19354080
Description: 7-Way F 2.8 Junior Power Timer Series, Sealed (BK)

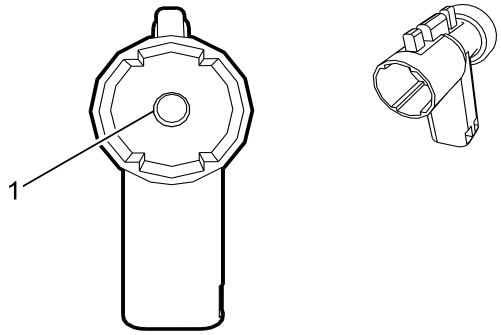
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E11A Fuel Heater/Water in Fuel Sensor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/WH	7073	Sensor Fuel Temperature 1 Low Reference	I	—
2	0.5	BN/GY	7072	Sensor Fuel Temperature 1 Signal	I	—
3	0.5	BU/YE	6861	Water In Fuel Sensor Signal	I	—
4	0.75	BK	2150	Ground	I	—
5	0.75	VT/GY	2739	Run/Crank Ignition 1 Voltage	I	—
6	2.5	VT/L-GN	355	Fuel Filter Heater Voltage	I	—
7	2.5	BK	2150	Ground	I	—

E12A Glow Plug 1



2323611

Connector Part Information

Harness Type: Glow Plug Jumper
OEM Connector: 1928404878
Service Connector: Service by Cable Assembly - See Part Catalog
Description: 1-Way F (BK)

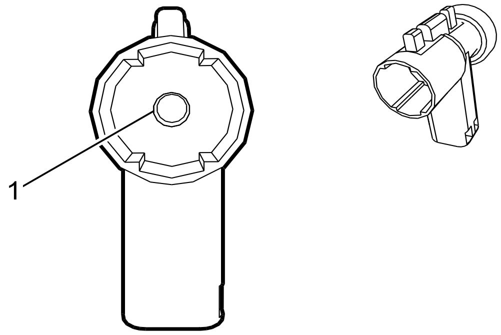
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

E12A Glow Plug 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	GY/D-BU	1581	Glow Plug Control 1	I	—

E12B Glow Plug 2



2323611

Connector Part Information

Harness Type: Glow Plug Jumper
OEM Connector: 1928404878
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F (BK)

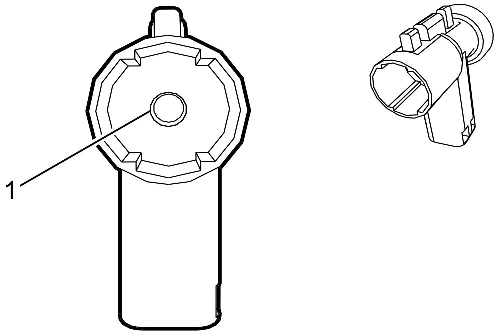
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

E12B Glow Plug 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	GY/BN	1582	Glow Plug Control 2	I	—

E12C Glow Plug 3



2323611

Connector Part Information

Harness Type: Glow Plug Jumper
OEM Connector: 1928404878
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F (BK)

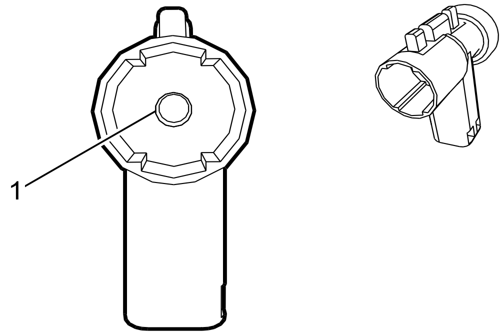
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

E12C Glow Plug 3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	1583	Glow Plug Control 3	I	—

E12D Glow Plug 4



2323611

Connector Part Information

Harness Type: Glow Plug Jumper
OEM Connector: 1928404878
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F (BK)

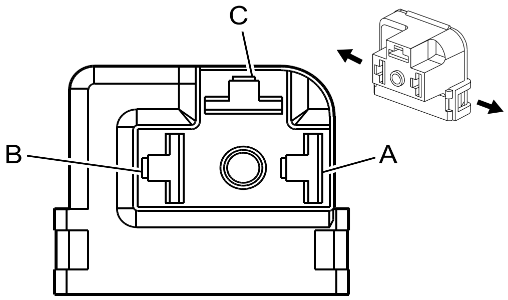
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

E12D Glow Plug 4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	GY/YE	1584	Glow Plug Control 4	I	—

E13L Headlamp - Left (-V22)



306269

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 12034372
Service Connector: 12117369
Description: 3-Way F 800 Metri-Pack Series (BK)

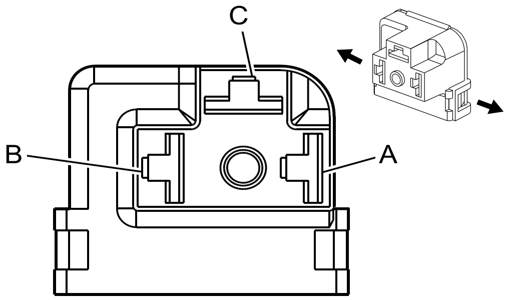
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-44 (YE)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E13L Headlamp - Left (-V22)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BK	250	Ground	I	—
B	0.5	D-GN/WH	711	Left Headlamp High Beam Control	I	—
C	0.5	YE	712	Left Headlamp Low Beam Control	I	—

E13R Headlamp - Right (-V22)



306269

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 12034372
Service Connector: 12117369
Description: 3-Way F 800 Metri-Pack Series (BK)

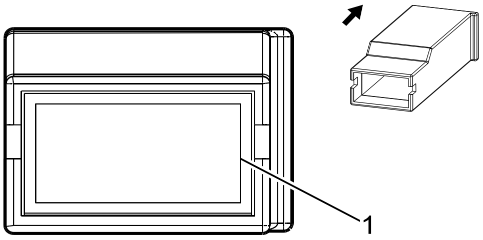
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-44 (YE)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E13R Headlamp - Right (-V22)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BK	650	Ground	I	—
B	0.8	L-GN/BK	311	Right Headlamp High Beam Control	I	—
C	0.5	TN/WH	312	Right Headlamp Low Beam Control	I	—

E18L Rear Defogger Grid - Left X1



Connector Part Information

Harness Type: Rear Window Defogger
OEM Connector: 12103107
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 6.3 Positive Lock Series (BK)

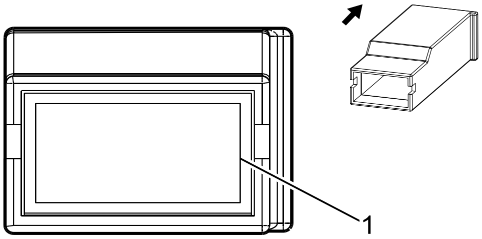
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E18L Rear Defogger Grid - Left X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
A	5	PU/	293	Rear Defog Element Control	I	—

E18L Rear Defogger Grid - Left X2



2500421

Connector Part Information

Harness Type: Rear Window Defogger
OEM Connector: 12103107
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 6.3 Positive Lock Series (BK)

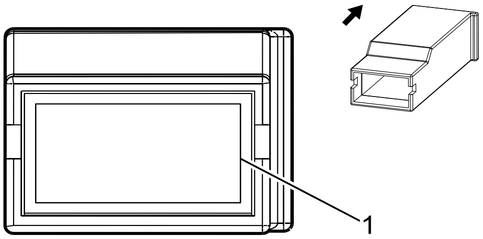
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E18L Rear Defogger Grid - Left X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
A	3	BK	850	Ground	I	—

E18R Rear Defogger Grid - Right X1



2500421

Connector Part Information

Harness Type: Rear Window Defogger
OEM Connector: 12103107
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 6.3 Positive Lock Series (BK)

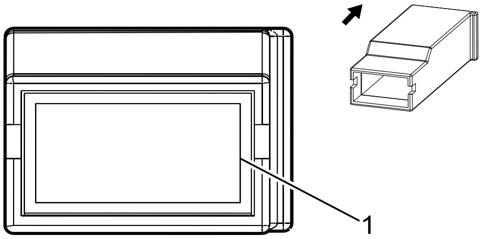
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

E18R Rear Defogger Grid - Right X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
A	—	PU	293	Rear Defog Element Control	I	—

E18R Rear Defogger Grid - Right X2



2500421

Connector Part Information

Harness Type: Rear Window Defogger
OEM Connector: 12103107
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 6.3 Positive Lock Series (BK)

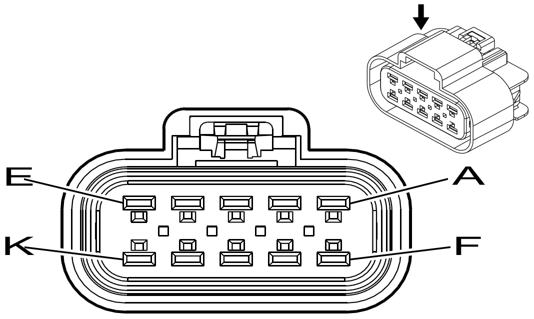
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

E18R Rear Defogger Grid - Right X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
A	—	BK	1050	Ground	I	—

E19 Coolant Heater



655815

Connector Part Information

Harness Type: Chassis
OEM Connector: 15326660
Service Connector: 88986262
Description: 10-Way F 280 GT Series, Sealed (BK)

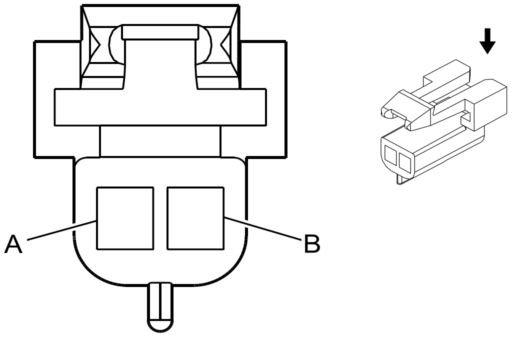
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13576356	J-35616-4A (PU)	J-38125-553	15304719	Delphi 19	2	5
II	13576356	J-35616-4A (PU)	J-38125-553	15304719	Delphi 19	E	5
III	13579782	J-35616-4A (PU)	J-38125-553	15304720	Delphi 19	4	5

E19 Coolant Heater

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	2	RD/WH	1740	Battery Positive Voltage	III	—
B	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	II	—
C	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	II	—
D	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	II	—
E	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	II	—
F	0.8	D-BU/L-GN	7077	Fuel Operated Heater Dosing Pump Control	I	—
G	—	—	—	Not Occupied	—	—
H	2	BK	150	Ground	III	—
J	0.5	WH/D-BU	5986	Serial Data Communication Enable	II	—
K	—	—	—	Not Occupied	—	—

E21A Fluorescent Work Lamp - Right Access Panel



280768

Connector Part Information

Harness Type: Rear Body
OEM Connector: 12052832
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series (BK)

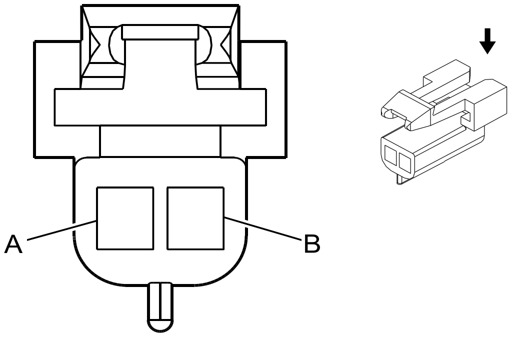
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E21A Fluorescent Work Lamp - Right Access Panel

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	D-BU/WH	149	Courtesy Lamp Control	I	—
B	20	BK	150	Ground	I	—

E21F Fluorescent Work Lamp - Front Cargo



280768

Connector Part Information

Harness Type: Rear Body
OEM Connector: 12052832
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series (BK)

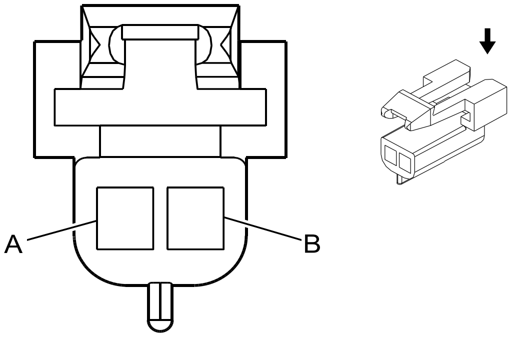
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E21F Fluorescent Work Lamp - Front Cargo

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	D-BU/WH	149	Courtesy Lamp Control	I	—
B	20	BK	150	Ground	I	—

E21LF Fluorescent Work Lamp - Left Front Access Panel



280768

Connector Part Information

Harness Type: Rear Body
OEM Connector: 12052832
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series (BK)

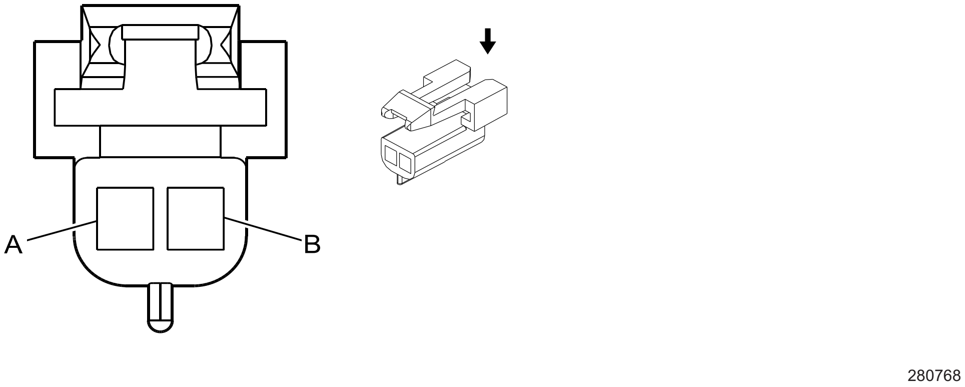
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E21LF Fluorescent Work Lamp - Left Front Access Panel

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	D-BU/WH	149	Courtesy Lamp Control	I	—
B	20	BK	150	Ground	I	—

E21LR Fluorescent Work Lamp - Left Rear Access Panel



Connector Part Information

Harness Type: Rear Body
OEM Connector: 12052832
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series (BK)

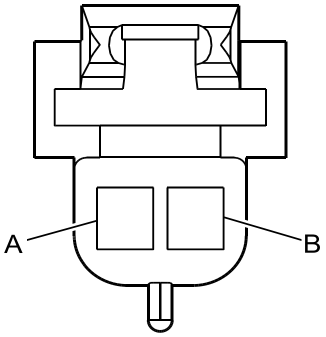
Terminal Part Information

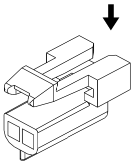
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E21LR Fluorescent Work Lamp - Left Rear Access Panel

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	D-BU/WH	149	Courtesy Lamp Control	I	—
B	20	BK	150	Ground	I	—

E21R Fluorescent Work Lamp - Rear Cargo





280768

Connector Part Information

Harness Type: Rear Body
OEM Connector: 12052832
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series (BK)

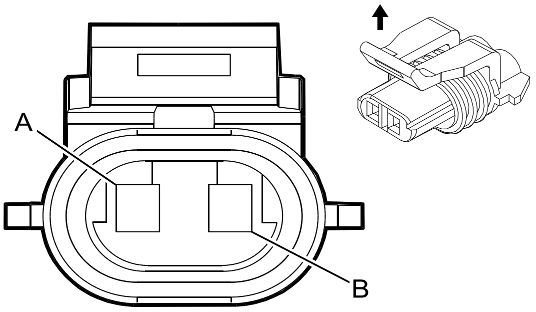
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E21R Fluorescent Work Lamp - Rear Cargo

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	D-BU/WH	149	Courtesy Lamp Control	I	—
B	20	BK	150	Ground	I	—

E22 Underhood Lamp



537107

Connector Part Information

Harness Type: Underhood Lamp
OEM Connector: 12052644
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series, Sealed (GY)

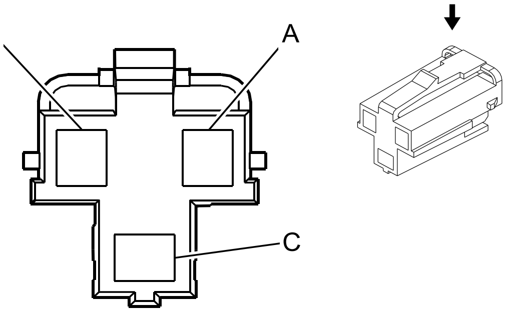
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E22 Underhood Lamp

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	OG	1732	Electronic Control Unit 12V Reference 3	I	—
B	0.5	BK	1250	Ground	I	—

E32 Cigarette Lighter Receptacle (DT4)



Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12176836
Service Connector: 19257374
Description: 3-Way F 280 Metri-Pack Series (GY)

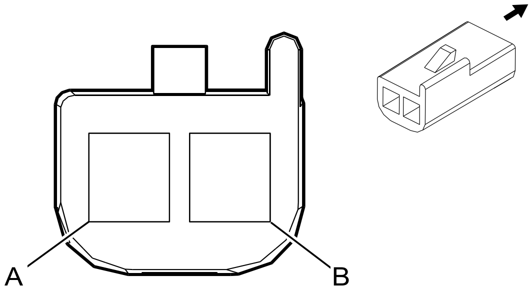
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E32 Cigarette Lighter Receptacle (DT4)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	RD/WH	640	Battery Positive Voltage	I	—
B	—	—	—	Not Occupied	—	—
C	1	BK	550	Ground	I	—

E36AC Dome Lamp - Left Roof Rail



82383

Connector Part Information

Harness Type: Body
OEM Connector: 12047662
Service Connector: 12085535
Description: 2-Way F 150 Metri-Pack Series (BK)

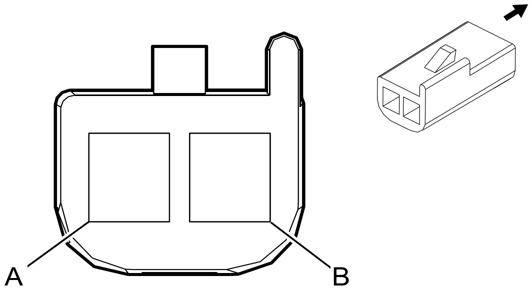
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E36AC Dome Lamp - Left Roof Rail

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	D-BU/WH	149	Courtesy Lamp Control	I	—
B	0.8	BK	850	Ground	I	—

E36AD Dome Lamp - Right Roof Rail



82383

Connector Part Information

Harness Type: Body
OEM Connector: 12047662
Service Connector: 12085535
Description: 2-Way F 150 Metri-Pack Series (BK)

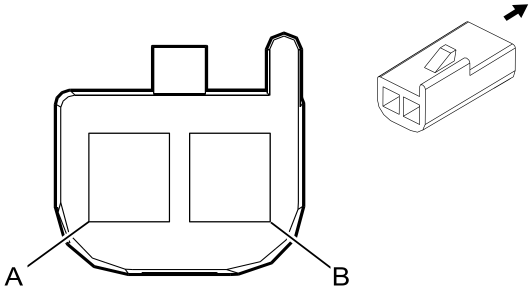
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E36AD Dome Lamp - Right Roof Rail

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	D-BU/WH	149	Courtesy Lamp Control	I	—
B	0.8	BK	850	Ground	I	—

E36AH Dome Lamp



82383

Connector Part Information

Harness Type: Body
OEM Connector: 12047662
Service Connector: 12085535
Description: 2-Way F 150 Metri-Pack Series (BK)

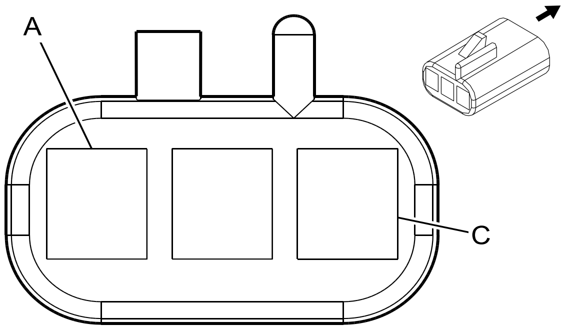
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E36AH Dome Lamp

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	D-BU/WH	149	Courtesy Lamp Control	I	—
B	0.8	BK	850	Ground	I	—

E37F Dome/Reading Lamps - Front



333035

Connector Part Information

Harness Type: Headliner
OEM Connector: 12047781
Service Connector: 13586139
Description: 3-Way F 150 Metri-Pack Series (BK)

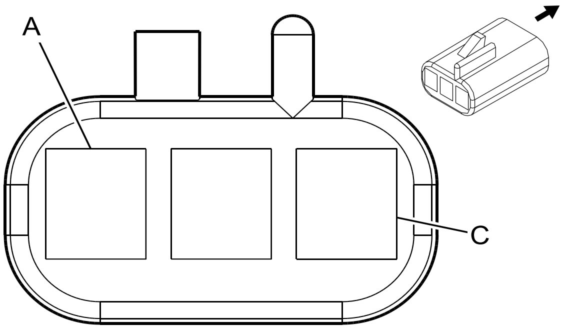
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E37F Dome/Reading Lamps - Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	D-BU/WH	149	Courtesy Lamp Control	I	—
B	0.8	BK	1850	Ground	I	C69-DH6/YF1
	1	BK	1850	Ground	I	DH6-5BV-YF1/ 5BV+C69
C	0.8	OG	1732	Electronic Control Unit 12V Reference 3	I	—

E37M Dome/Reading Lamps - Middle



333035

Connector Part Information

Harness Type: Headliner
OEM Connector: 12047781
Service Connector: 13586139
Description: 3-Way F 150 Metri-Pack Series (BK)

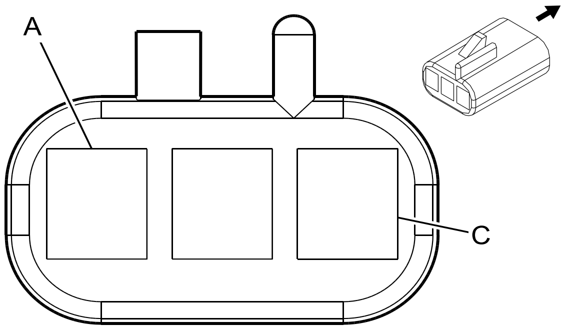
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E37M Dome/Reading Lamps - Middle

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	D-BU/WH	149	Courtesy Lamp Control	I	—
B	0.5	BK	1050	Ground	I	—
C	0.8	OG	1732	Electronic Control Unit 12V Reference 3	I	—

E37R Dome/Reading Lamps - Rear



333035

Connector Part Information

Harness Type: Headliner
OEM Connector: 12047781
Service Connector: 13586139
Description: 3-Way F 150 Metri-Pack Series (BK)

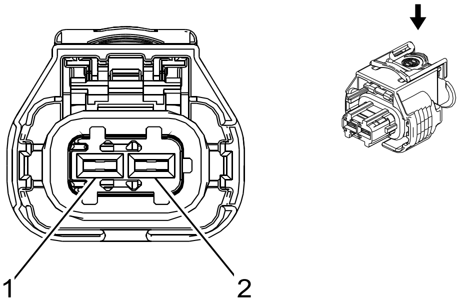
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E37R Dome/Reading Lamps - Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	D-BU/WH	149	Courtesy Lamp Control	I	—
B	0.5	BK	1050	Ground	I	—
C	0.8	OG	1732	Electronic Control Unit 12V Reference 3	I	—

E45 Positive Crankcase Ventilation Heater



2577394

Connector Part Information

Harness Type: Engine
OEM Connector: 13930085
Service Connector: 13384371
Description: 2-Way F 2.8 Series, Sealed (BK)

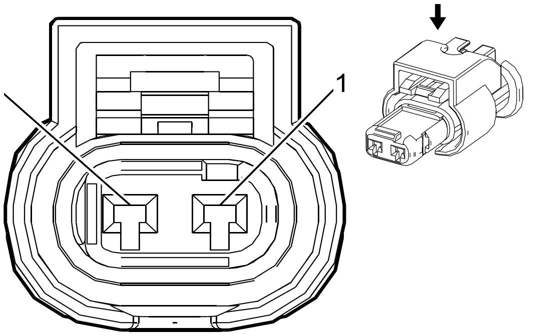
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

E45 Positive Crankcase Ventilation Heater

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/D-BU	1497	Crankcase Ventilation (Blowby) Heater Control Signal	I	—
2	0.5	VT/D-BU	5293	Powertrain Main Relay Fused Supply 4	I	—

E52 Reductant Line Heater



2474752

Connector Part Information

Harness Type: Emission Reductant Fluid Tank Reservoir
OEM Connector: 1-1823608-5
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 MCP Series, Sealed (BK)

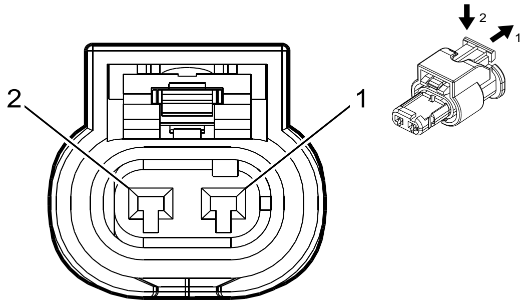
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

E52 Reductant Line Heater

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	VT	4319	DEF Line Heater Low Control	I	—
2	—	YE	3922	DEF Heater Supply 2	I	—

F101 Passenger Instrument Panel Air Bag



2698576

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13863037
Service Connector: 19368724
Description: 2-Way F 1.2 MCP Series, Sealed (YE)

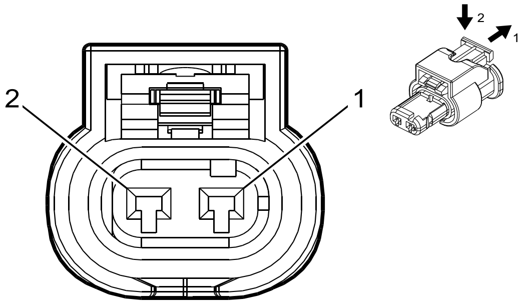
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

F101 Passenger Instrument Panel Air Bag

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	3025	Passenger IP Module Stage 1 High Control	I	—
2	0.5	OG	3024	Passenger IP Module Stage 1 Low Control	I	—

F105LF Roof Rail Air Bag - Left Front



2698576

Connector Part Information

Harness Type: Body
OEM Connector: 13863037
Service Connector: 19368724
Description: 2-Way F 1.2 MCP Series, Sealed (YE)

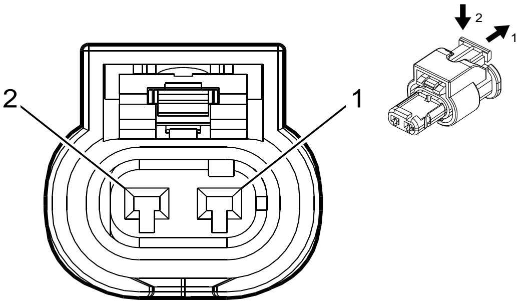
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

F105LF Roof Rail Air Bag - Left Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	PK	5020	Left Front Head Curtain Module Low Control	I	—
2	0.5	PU/WH	5019	Left Front Head Curtain Module High Control	I	—

F105RF Roof Rail Air Bag - Right Front



2698576

Connector Part Information

Harness Type: Body
OEM Connector: 13863037
Service Connector: 19368724
Description: 2-Way F 1.2 MCP Series, Sealed (YE)

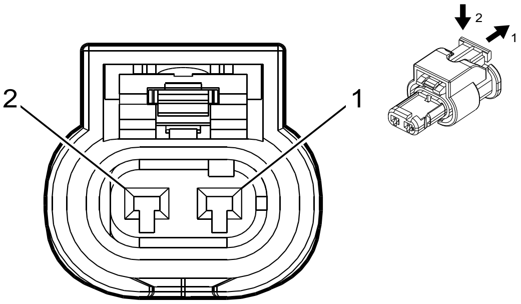
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

F105RF Roof Rail Air Bag - Right Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/BK	5022	Right Front Head Curtain Module Low Control	I	—
2	0.5	YE/BK	5021	Right Front Head Curtain Module High Control	I	—

F105RR Roof Rail Air Bag - Right Rear



2698576

Connector Part Information

Harness Type: Body
OEM Connector: 13863037
Service Connector: 19368724
Description: 2-Way F 1.2 MCP Series, Sealed (YE)

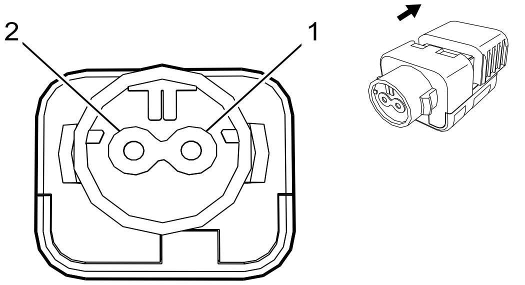
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

F105RR Roof Rail Air Bag - Right Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	TN/BK	7016	Right Rear Head Curtain Module Low Control	I	—
2	0.5	L-BU	7015	Right Rear Head Curtain Module High Control	I	—

F106D Seat Side Air Bag - Driver



2282927

Connector Part Information

Harness Type: Driver Seat Air Bag Jumper
OEM Connector: 19153419
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F FPB 180-1 Series (BK with YE Cover)

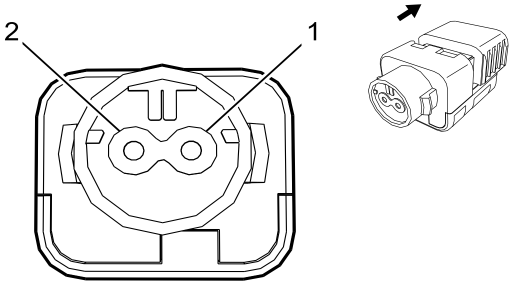
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

F106D Seat Side Air Bag - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	BN	2137	Left Front Side Impact Module High Control	I	—
2	—	YE/BK	2138	Left Front Side Impact Module Low Control	I	—

F106P Seat Side Air Bag - Passenger



2282927

Connector Part Information

Harness Type: Passenger Seat Air Bag Jumper
OEM Connector: 19153419
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F FPB 180-1 Series (BK with YE Cover)

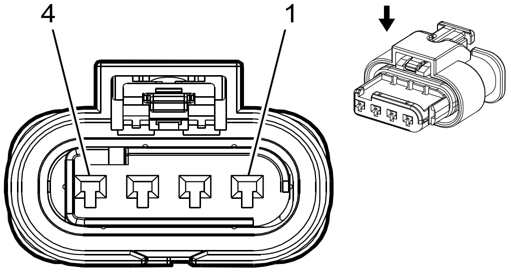
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

F106P Seat Side Air Bag - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	TN/WH	2135	Right Front Side Impact Module High Control	I	—
2	—	L-GN	2136	Right Front Side Impact Module Low Control	I	—

F107 Steering Wheel Air Bag



2684560

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13854531
Service Connector: 13586137
Description: 4-Way F 1.2 Series, Sealed (YE)

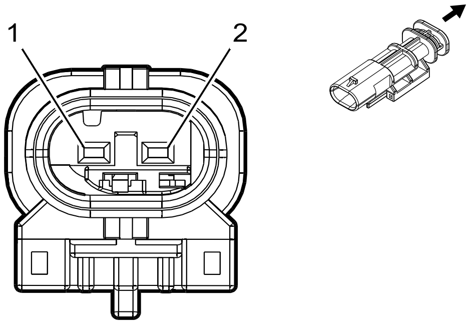
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

F107 Steering Wheel Air Bag

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	TN	3021	Steering Wheel Module Stage 1 High Control	I	—
2	0.5	BN	3020	Steering Wheel Module Stage 1 Low Control	I	—
3 - 4	—	—	—	Not Occupied	—	—

F109D Seat Belt Buckle Pretensioner - Driver



4569729

Connector Part Information

Harness Type: Driver Seat Pretensioner Jumper
OEM Connector: 13581182
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 1.2 MCON Series (YE)

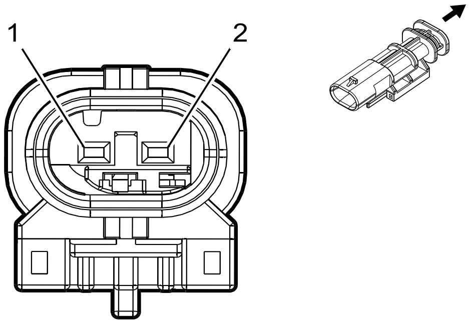
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

F109D Seat Belt Buckle Pretensioner - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	TN/WH	2118	Driver Seat Belt Pretensioner High Control	I	—
2	—	OG/BK	2119	Driver Seat Belt Pretensioner Low Control	I	—

F109P Seat Belt Buckle Pretensioner - Passenger



4569729

Connector Part Information

Harness Type: Passenger Seat Pretensioner Jumper
OEM Connector: 13581182
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 1.2 MCON Series (YE)

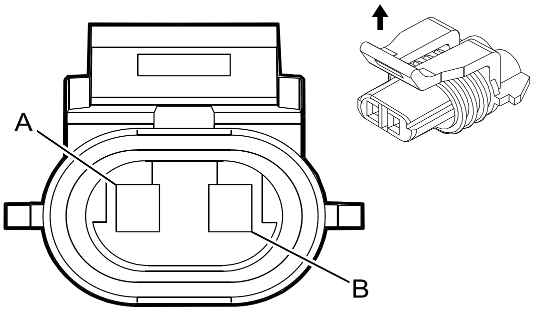
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

F109P Seat Belt Buckle Pretensioner - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	L-GN	2116	Passenger Seat Belt Pretensioner High Control	I	—
2	—	OG	2117	Passenger Seat Belt Pretensioner Low Control	I	—

G7 Coolant Heater Fuel Pump



537107

Connector Part Information

Harness Type: Chassis
OEM Connector: 12052644
Service Connector: 19368034
Description: 2-Way F 150 Metri-Pack Series, Sealed (GY)

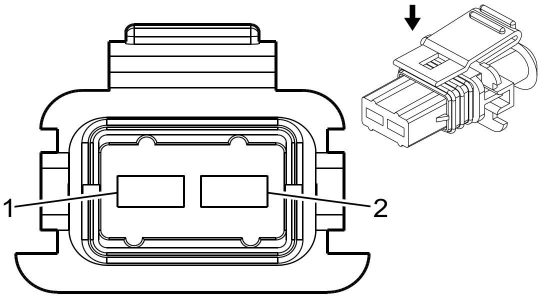
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

G7 Coolant Heater Fuel Pump

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	D-BU/L-GN	7077	Fuel Operated Heater Dosing Pump Control	I	—
B	0.8	BK	150	Ground	I	—

G13 Generator X1 (L96/LC8)



1522871

Connector Part Information

Harness Type: Engine
OEM Connector: 12186308
Service Connector: 13585849
Description: 2-Way F Junior Power Timer Series, Sealed (BK)

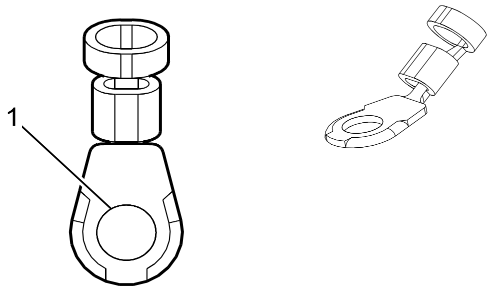
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

G13 Generator X1 (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	OG	225	Generator Turn On Signal	I	—
2	0.5	GY	23	Generator Field Duty Cycle Signal	I	—

G13 Generator X2 (L96/LC8+K68)



4833641

Connector Part Information

Harness Type: Positive Battery Cable
OEM Connector: 12191853
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

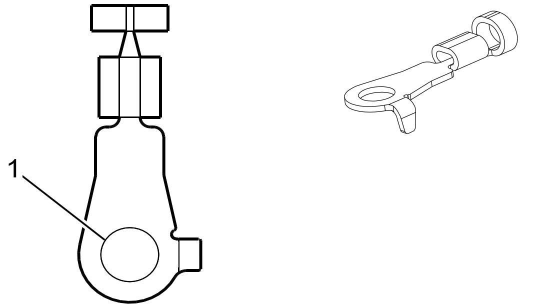
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

G13 Generator X2 (L96/LC8+K68)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	19	RD	1	Unfused Battery Positive Voltage	I	—

G13 Generator X2 (L96/LC8+KG4/KW5)



4833656

Connector Part Information

Harness Type: Positive Battery Cable
OEM Connector: 15544794
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

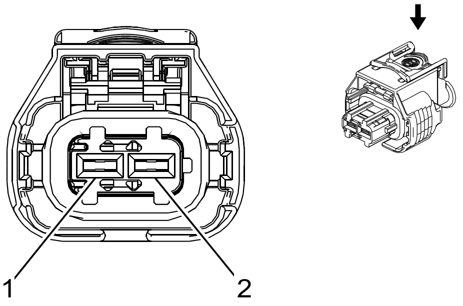
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

G13 Generator X2 (L96/LC8+KG4/KW5)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	25	RD	1	Unfused Battery Positive Voltage	I	—

G13 Generator X1 (LV1)



2577394

Connector Part Information

Harness Type: Engine
OEM Connector: 13930085
Service Connector: 13384371
Description: 2-Way F 2.8 Series, Sealed (BK)

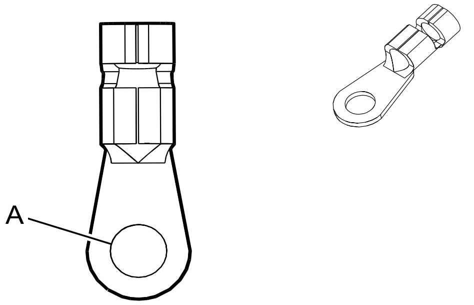
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

G13 Generator X1 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-BU/WH	225	Generator Turn On Signal	I	—
2	0.5	GY	23	Generator Field Duty Cycle Signal	I	—

G13 Generator X2 (LV1+K68)



2268698

Connector Part Information

Harness Type: Positive Battery Cable
OEM Connector: 12129598
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

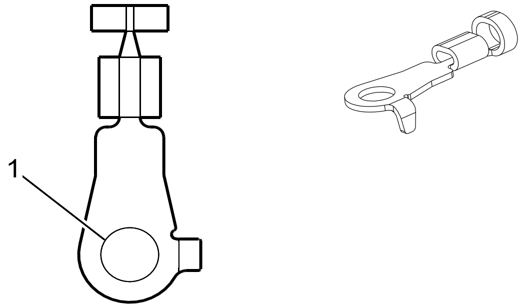
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

G13 Generator X2 (LV1+K68)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	19	RD	1	Unfused Battery Positive Voltage	I	—

G13 Generator X2 (LV1-K68)



4833656

Connector Part Information

Harness Type: Positive Battery Cable
OEM Connector: 15544794
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

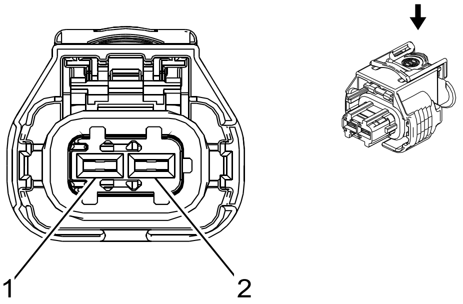
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

G13 Generator X2 (LV1-K68)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	25	RD	1	Unfused Battery Positive Voltage	I	—

G13 Generator X1 (LWN)



2577394

Connector Part Information

Harness Type: Engine
OEM Connector: 13930085
Service Connector: 13384371
Description: 2-Way F 2.8 Series, Sealed (BK)

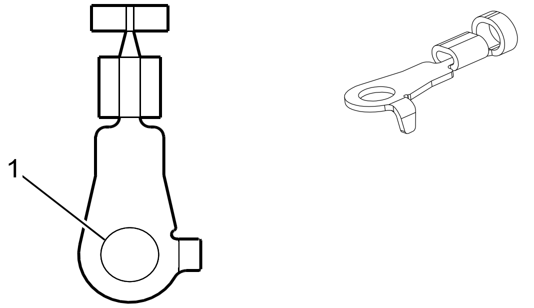
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

G13 Generator X1 (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	D-BU/WH	225	Generator Turn On Signal	I	—
2	0.75	GY	23	Generator Field Duty Cycle Signal	I	—

G13 Generator X2 (LWN)



Connector Part Information

Harness Type: Positive Battery Cable
OEM Connector: 15544794
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

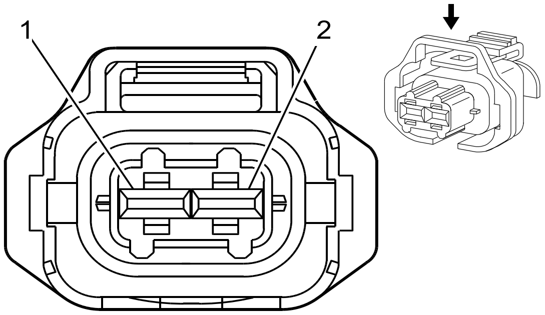
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

G13 Generator X2 (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	25	RD	1	Unfused Battery Positive Voltage	I	—

G18 High Pressure Fuel Pump



784092

Connector Part Information

Harness Type: Fuel Injector Jumper
OEM Connector: 1928403874
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 Kompakt Series, Sealed (BK)

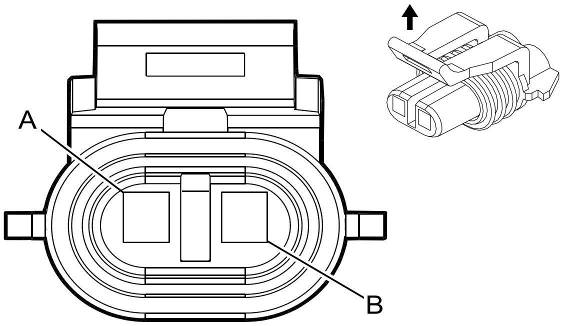
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

G18 High Pressure Fuel Pump

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	YE	7301	High Pressure Fuel Pump Actuator High - Control	I	—
2	—	VT/BK	7300	High Pressure Fuel Pump Actuator Low - Control	I	—

G24 Windshield Washer Pump



635009

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12052641
Service Connector: 13586114
Description: 2-Way F 150 Metri-Pack Series (BK)

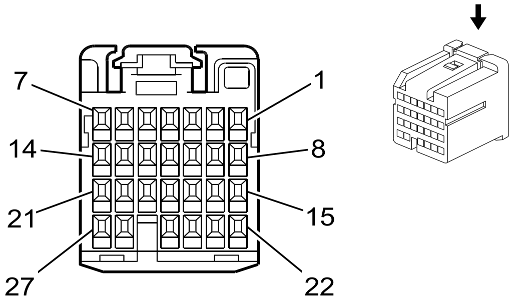
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

G24 Windshield Washer Pump

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	OG	228	Windshield Washer Pump Control	I	—
B	0.5	BK	350	Ground	I	—

K9 Body Control Module X1



1664495

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15482789
Service Connector: 88988838
Description: 27-Way F HIT Series (L-GN)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575870	J-35616-64B (LT BU)	J-38125-12A	SNAC3-A021T-M0.64	Delphi 20	J	J
II	13578820	J-35616-64B (LT BU)	J-38125-12A	SNAC3-A021T-M0.64	Delphi 20	J	J

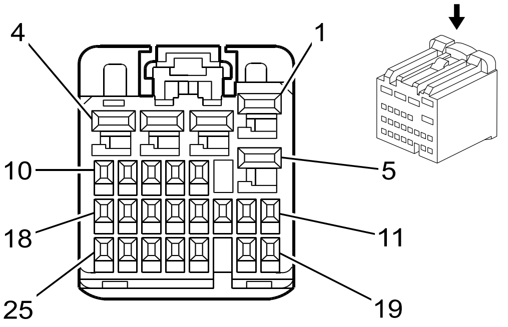
K9 Body Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.35	PK	1020	Off/Run/Crank Ignition Voltage	I	—
3	0.35	GY	1884	Cruise Control Set/Coast/Resume/Accelerate Switch Signal	I	—
4	0.35	WH	530	Off/Run/Crank Ignition Voltage	I	—
5	0.35	L-GN	1715	Windshield Wiper Switch High Signal	I	—
6	0.35	L-GN	6818	Steering Wheel Resistor Ladder Signal 1	I	—
7	—	—	—	Not Occupied	—	—
8	0.35	TN/BK	6009	Windshield Wiper Switch Low Reference	I	—
9	0.35	L-BU	1714	Windshield Wiper Switch Low Signal	I	—
10 - 13	—	—	—	Not Occupied	—	—
14	0.35	PK	3	Run/Crank Ignition 1 Voltage	I	—
15	0.35	D-GN	663	Hazard Switch Left Turn Signal	I	—
16	0.35	TN	664	Hazard Switch Right Turn Signal	I	—
17	0.35	PK	1444	12V Reference	I	—
18	0.35	YE	525	Headlamp Dimmer Switch Low Beam Signal	I	—
19	0.35	WH	111	Hazard Switch Signal	I	—
20	0.35	PU/	5526	Tap Up/Tap Down Switch Signal	I	—
21	0.35	BN	4	Accessory Ignition Voltage	I	—

K9 Body Control Module X1 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
22	—	—	—	Not Occupied	—	—
23	0.35	L-BU	1788	Traction Control Switch Signal 1	I	—
24	0.35	PK	94	Windshield Washer Switch Signal	I	—
25	0.35	YE	307	Headlamp Switch Flash To Pass Signal	I	—
26	0.5	TN/WH	816	Brake Transmission Shift Interlock Solenoid Control	II	—
27	—	—	—	Not Occupied	—	—

K9 Body Control Module X2



1664496

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15482790
Service Connector: 88988839
Description: 25-Way F HIT Series (NA)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575870	J-35616-64B (LT BU)	J-38125-12A	SNAC3-A021T-M0.64	Delphi 20	J	J
II	13578820	J-35616-64B (LT BU)	J-38125-12A	SNAC3-A021T-M0.64	Delphi 20	J	J
III	13587507	J-35616-35 (VT)	J-38125-12A	SNAC-A061T-M2.8	Delphi 20	E	A

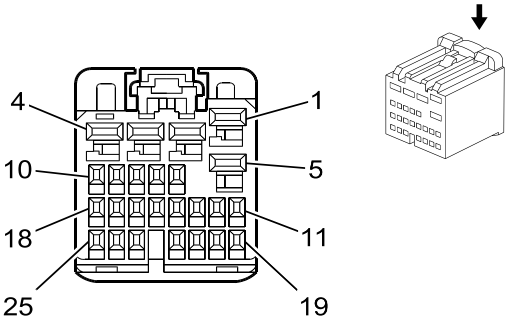
K9 Body Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.8	OG	1732	Electronic Control Unit 12V Reference 3	III	—
2	0.5	RD/WH	2540	Battery Positive Voltage	III	—
3	0.5	BN/WH	230	Instrument Panel Lamp Dimming Control	III	—
4	—	—	—	Not Occupied	—	—
5	0.5 0.8	GY/BK D-BU/WH	690 149	Courtesy Lamp Relay Control Courtesy Lamp Control	III III	5BV -5BV
6 - 7	—	—	—	Not Occupied	—	—
8	0.35	L-BU/	13	Headlamp Switch Park Lamp Signal	I	—
9 - 10	—	—	—	Not Occupied	—	—
11	0.35	WH	278	Ambient Light Sensor Signal	I	—
12	0.35	WH	103	Headlamp Switch On Signal	I	—
13 - 16	—	—	—	Not Occupied	—	—
17	0.35	D-GN/	306	Headlamp Switch Headlamps Off Signal Control	I	—
18	0.35	D-BU/WH	149	Courtesy Lamp Control	I	—
19 - 20	—	—	—	Not Occupied	—	—
21	0.5	D-BU/	6727	Vehicle Stability Control Off Switch Signal	II	—
22	0.35	D-BU/	38	Backup Lamp Relay Control	I	—

K9 Body Control Module X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
23 - 24	—	—	—	Not Occupied	—	—
25	0.35	PU/	328	Interior Lamp Defeat Switch Signal	I	—

K9 Body Control Module X3



1664498

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15482791
Service Connector: 88988840
Description: 25-Way F HIT Series (L-BU)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575870	J-35616-64B (LT BU)	J-38125-12A	SNAC3-A021T-M0.64	Delphi 20	J	J
II	13578820	J-35616-64B (LT BU)	J-38125-12A	SNAC3-A021T-M0.64	Delphi 20	J	J
III	13587507	J-35616-35 (VT)	J-38125-12A	SNAC-A061T-M2.8	Delphi 20	E	A

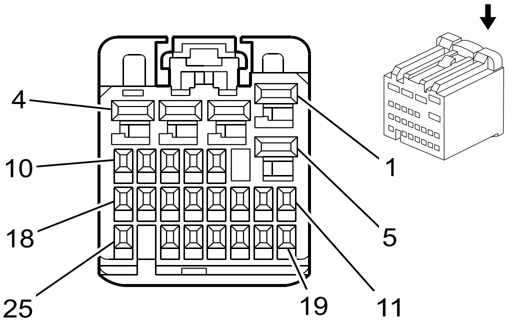
K9 Body Control Module X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.8	BK/WH	351	Signal Ground	III	—
2	0.8	RD/WH	2140	Battery Positive Voltage	III	—
3	0.5	RD/WH	3840	Battery Positive Voltage	III	—
4	—	—	—	Not Occupied	—	—
5	0.8	BK/WH	351	Signal Ground	III	—
6 - 7	—	—	—	Not Occupied	—	—
8	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	II	—
9	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	II	—
10	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
11	0.35	D-GN	44	Instrument Panel Lamp Dimmer Switch Signal	I	—
12	0.35	OG/WH	812	12V Reference	I	—
13	0.5	TN	5380	Brake Position Sensor Signal	II	—
14	0.5	BN/WH	5382	Brake Position Sensor Low Reference	II	—
15	0.5	GY	5381	Brake Position Sensor 5V Reference	II	—
16	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	II	—
17	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	II	—
18	0.5	YE	6817	LED Backlight Dimming Control	II	—

K9 Body Control Module X3 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
19	0.5	WH/D-BU	5986	Serial Data Communication Enable	II	—
20 - 21	—	—	—	Not Occupied	—	—
22	0.35	D-GN/WH	7158	Cruise Control Indicator Dimming Signal	I	—
23 - 24	—	—	—	Not Occupied	—	—
25	0.35	WH	6816	Indicator Dimming Control	I	—

K9 Body Control Module X4



1664499

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15482792
Service Connector: 88988841
Description: 25-Way F HIT Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575870	J-35616-64B (LT BU)	J-38125-12A	SNAC3-A021T-M0.64	Delphi 20	J	J
II	13578820	J-35616-64B (LT BU)	J-38125-12A	SNAC3-A021T-M0.64	Delphi 20	J	J
III	13587507	J-35616-35 (VT)	J-38125-12A	SNAC-A061T-M2.8	Delphi 20	E	A

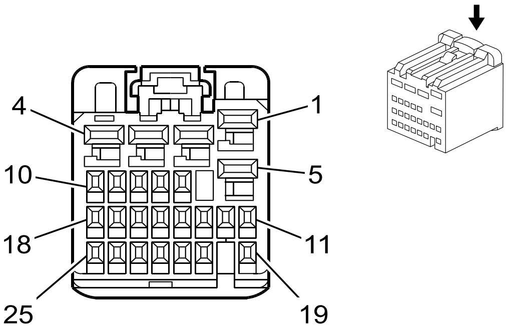
K9 Body Control Module X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.8	RD/WH	2740	Battery Positive Voltage	III	—
2	0.8	RD/WH	3040	Battery Positive Voltage	III	—
3	0.8	RD/WH	2940	Battery Positive Voltage	III	—
4	0.8	RD/WH	2240	Battery Positive Voltage	III	—
5	0.8	D-BU/WH	1315	Right Front Turn Signal Lamp Control	III	—
6	0.35	D-GN	6134	Local Interconnect Network Serial Data Bus 3	I	—
7	0.35	YE	196	Windshield Wiper Motor Park Switch Signal	I	—
8	—	—	—	Not Occupied	—	—
9	0.5	BK/WH	451	Signal Ground	II	—
10	0.5	RD/WH	2840	Battery Positive Voltage	II	—
11	0.5	L-GN	1391	Left Front Door Lock Relay Control	II	—
12	0.35	YE	5187	Right Trailer Turn Signal Lamp Control	I	—
13	0.35	OG	5186	Left Trailer Turn Signal Lamp Control	I	—
14	—	—	—	Not Occupied	—	—
15	0.35	OG	2268	Windshield Washer Relay Control	I	—
16	0.35	TN/WH	1969	Headlamp High Beam Relay Control	I	—
17	0.5	PK/BK	109	Hood Ajar Switch Signal	II	—

K9 Body Control Module X4 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
18	—	—	—	Not Occupied	—	—
19	0.5	D-BU/	5985	Accessory Wakeup Serial Data	II	—
20	0.5	L-BU	1344	Rear Compartment Lid Release Relay Control	II	—
21	0.35	YE	5199	Run/Crank Relay Coil Control	I	—
22	—	—	—	Not Occupied	—	—
23	0.35	PU/	544	DRL Relay Control	I	—
24	0.5	L-BU	244	Passenger Door Lock Switch Lock Control	II	—
25	—	—	—	Not Occupied	—	—

K9 Body Control Module X5



1664500

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15480179
Service Connector: 88988837
Description: 25-Way F HIT Series (BN)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575870	J-35616-64B (LT BU)	J-38125-12A	SNAC3-A021T-M0.64	Delphi 20	J	J
II	13578820	J-35616-64B (LT BU)	J-38125-12A	SNAC3-A021T-M0.64	Delphi 20	J	J
III	13587507	J-35616-35 (VT)	J-38125-12A	SNAC-A061T-M2.8	Delphi 20	C	A
IV	13587507	J-35616-35 (VT)	J-38125-12A	SNAC-A061T-M2.8	Delphi 20	E	A

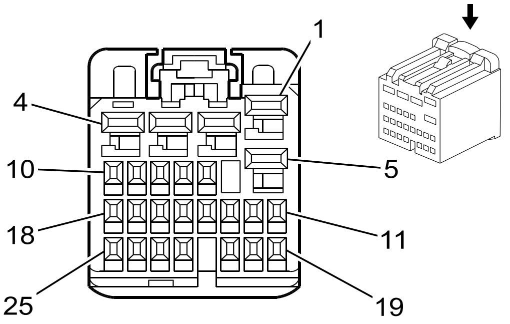
K9 Body Control Module X5

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1	YE	618	Left Rear Turn Signal Lamp Control	III	—
2	1	D-GN	619	Right Rear Turn Signal Lamp Control	III	—
3	—	—	—	Not Occupied	—	—
4	0.8	L-BU/WH	1314	Left Front Turn Signal Lamp Control	IV	—
5	0.5	WH	5065	Stop Lamp Relay Coil Control	IV	—
6	0.35	WH/D-BU	6311	Cruise/ETC/TCC Brake Signal	I	—
7	—	—	—	Not Occupied	—	—
8	0.5	PK	5076	Current Sensor Control	II	—
9	0.5	WH	5075	Current Sensor Signal	II	—
10	0.5	BN	5077	Current Sensor Low Reference	II	—
11	0.35	YE	43	Accessory Ignition Voltage	I	—
12	—	—	—	Not Occupied	—	—
13	0.35	OG	300	Run Ignition 3 Voltage	I	—
14	0.5	L-GN	24	Backup Lamp Control	II	—
15	0.5	PU/	5531	Hood Closed Switch Signal	II	—
16	0.35	L-BU	1134	Park Brake Switch Signal	I	—

K9 Body Control Module X5 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
17	—	—	—	Not Occupied	—	—
18	0.35	TN	28	Horn Relay Control	I	—
19	0.5	YE	5810	Park Enable Signal	II	—
20	0.35	GY	91	Windshield Wiper Motor Relay Coil Control	I	—
21	0.35	TN	860	Front Windshield Wiper Switch High Signal	I	—
22	—	—	—	Not Occupied	—	—
23	0.35	PK/WH	1970	Headlamp Low Beam Relay Control	I	—
24	0.35	D-BU/	45	Park Lamp Relay Control	I	—
25	—	—	—	Not Occupied	—	—

K9 Body Control Module X6



1664502

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15482793
Service Connector: 88988842
Description: 25-Way F HIT Series (PK)

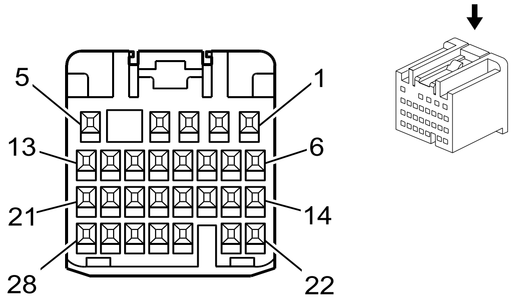
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575870	J-35616-64B (LT BU)	J-38125-12A	SNAC3-A021T-M0.64	Delphi 20	J	J
II	13587507	J-35616-35 (VT)	J-38125-12A	SNAC-A061T-M2.8	Delphi 20	E	A

K9 Body Control Module X6

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.8	L-BU	1320	CHMSL Control	II	—
3 - 7	—	—	—	Not Occupied	—	—
8	0.35	TN/WH	746	Right Front Door Ajar Switch Signal	I	—
9	0.35	D-BU/	245	Passenger Door Lock Switch Unlock Control	I	—
10	0.35	GY/BK	745	Left Front Door Ajar Switch Signal	I	—
11	—	—	—	Not Occupied	—	—
12	0.35	PK/BK	1303	Lift Gate Ajar Switch Signal 1	I	—
13	—	—	—	Not Occupied	—	—
14	0.35	YE/BK	1181	Right Rear Door Open Switch Signal	I	—
15	—	—	—	Not Occupied	—	—
16	0.35	L-GN	1177	Right Front Door Open Switch Signal	I	—
17	—	—	—	Not Occupied	—	—
18	0.35	L-BU	244	Passenger Door Lock Switch Lock Control	I	—
19 - 21	—	—	—	Not Occupied	—	—
22	0.35	L-GN	5926	Rear Access Open Switch Signal	I	—
23 - 25	—	—	—	Not Occupied	—	—

K9 Body Control Module X7



1664505

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15466053
Service Connector: 88988806
Description: 28-Way F HIT Series (GY)

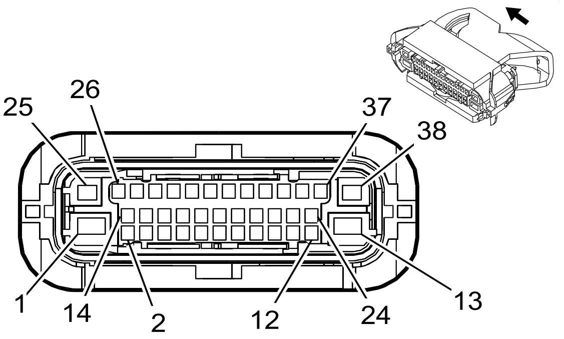
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13578820	J-35616-64B (LT BU)	J-38125-12A	SNAC3-A021T-M0.64	Delphi 20	J	J

K9 Body Control Module X7

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.5	YE	356	Driver Door Lock Relay Unlock Control	I	—
3 - 5	—	—	—	Not Occupied	—	—
6	0.5	YE	356	Driver Door Lock Relay Unlock Control	I	—
7	0.5	L-BU	244	Passenger Door Lock Switch Lock Control	I	—
8	—	—	—	Not Occupied	—	—
9	0.5	L-BU	244	Passenger Door Lock Switch Lock Control	I	—
10	—	—	—	Not Occupied	—	—
11	0.5	OG/BK	781	Driver Door Lock Switch Unlock Signal	I	—
12	0.5	PK/BK	780	Driver Door Lock Switch Lock Signal	I	—
13 - 22	—	—	—	Not Occupied	—	—
23	0.5	TN	126	Left Front Door Open Switch Signal	I	—
24	0.5	L-GN	66	A/C Request Signal	I	—
25 - 28	—	—	—	Not Occupied	—	—

K17 Electronic Brake Control Module



3638282

Connector Part Information

Harness Type: Chassis
OEM Connector: 13655518
Service Connector: 19303771
Description: 38-Way F 1.5 CTS, 2.8 MCP, 4.8 MCP Series, Sealed (BK with BN Inner Connector)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19329757	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
II	19367600	J-35616-40 (BU)	J-38125-556	Not Available	Not Available	Not Available	Not Available
III	19368624	J-35616-35 (VT)	J-38125-36	Not Available	Not Available	Not Available	Not Available

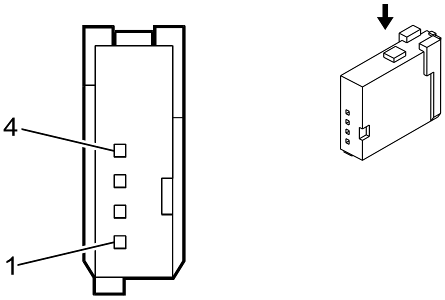
K17 Electronic Brake Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	5	RD/YE	442	Battery Positive Voltage	II	—
2	—	—	—	Not Occupied	—	—
3	0.5	GY/YE	7128	Wheel Speed Sensor Control Right Rear	I	—
4	0.5	VT	882	Wheel Speed Sensor Signal Right Rear	I	—
5	0.5	BU/YE	6105	High Speed GMLAN Serial Data (+) 2	I	—
6	0.5	WH	6106	High Speed GMLAN Serial Data (-) 2	I	—
7	—	—	—	Not Occupied	—	—
8	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
9	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
10	0.5	GY/BN	7065	Wheel Speed Sensor Control Right Front	I	—
11	0.5	YE	872	Wheel Speed Sensor Signal Right Front	I	—
12	—	—	—	Not Occupied	—	—
13	5	BK	2150	Ground	II	—
14 - 16	—	—	—	Not Occupied	—	—
17	0.5	L-GN/BN	2087	Combined Vehicle Inertial Sensor Supply Voltage	I	—
18 - 19	—	—	—	Not Occupied	—	—
20	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—

K17 Electronic Brake Control Module (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
21	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
22 - 24	—	—	—	Not Occupied	—	—
25	2.5	RD/VT	1640	Battery Positive Voltage	III	—
26 - 27	—	—	—	Not Occupied	—	—
28	0.5	WH/D-BU	5986	Serial Data Communication Enable	I	—
29	0.5	GY/BK	7127	Wheel Speed Sensor Control Left Rear	I	—
30	0.5	BU	884	Wheel Speed Sensor Signal Left Rear	I	—
31 - 32	—	—	—	Not Occupied	—	—
33	0.5	D-GN/WH	817	Vehicle Speed Signal	I	—
34	—	—	—	Not Occupied	—	—
35	0.5	GY/WH	7064	Wheel Speed Sensor Control Left Front	I	—
36	0.5	GY	830	Wheel Speed Sensor Signal Left Front	I	—
37	—	—	—	Not Occupied	—	—
38	2.5	BK	2150	Ground	III	—

K18 Compass Module



Connector Part Information

Harness Type: Headliner
OEM Connector: 13820711
Service Connector: 19300398
Description: 4-Way F 0.64 Series (BK)

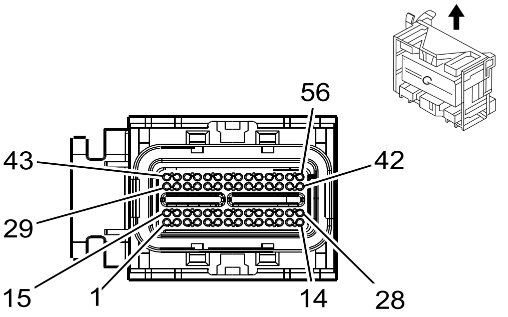
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K18 Compass Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	BN	441	Run Ignition 3 Voltage	I	—
2	0.35	BK/WH	351	Signal Ground	I	—
3	0.35	D-GN/	6134	Local Interconnect Network Serial Data Bus 3	I	—
4	—	—	—	Not Occupied	—	—

K20 Engine Control Module X1 (L96/LC8)



784851

Connector Part Information

Harness Type: Engine
OEM Connector: 13510837
Service Connector: 88988373
Description: 56-Way F 0.64 Series, Sealed (BU with BU Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575812	J-35616-64B (LT BU)	J-38125-213	Not Available	Not Available	Not Available	Not Available

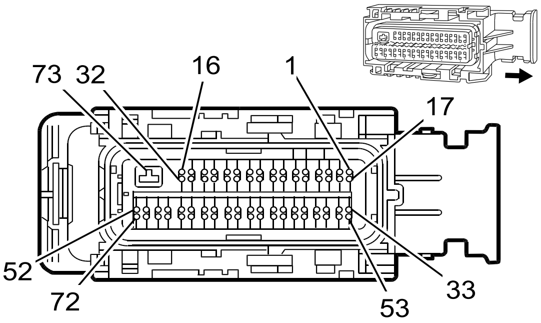
K20 Engine Control Module X1 (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	0.5	L-BU	1162	Accelerator Pedal Position Signal 2	I	—
3	0.75	L-GN/WH	492	Mass Air Flow Sensor Signal	I	—
4 - 7	—	—	—	Not Occupied	—	—
8	0.75	GY/D-BU	7564	Humidity Sensor Signal	I	—
9	—	—	—	Not Occupied	—	—
10	0.5	D-BU/	1161	Accelerator Pedal Position Signal 1	I	—
11	0.75	YE/WH	3200	Throttle Inlet Absolute Pressure Sensor Signal	I	—
12	0.8	OG/BK	380	A/C Refrigerant Pressure Sensor Signal	I	—
13	0.8	TN	5514	A/C Refrigerant Pressure Sensor Low Reference	I	—
14 - 15	—	—	—	Not Occupied	—	—
16	0.5	TN	1274	Accelerator Pedal Position 5V Reference 2	I	—
17	—	—	—	Not Occupied	—	—
18	0.5	D-BU/	5985	Accessory Wakeup Serial Data	I	—
19	0.5	VT/L-GN	439	Run/Crank Ignition 1 Voltage	I	—
20	0.5	RD/WH	440	Battery Positive Voltage	I	—
21 - 23	—	—	—	Not Occupied	—	—
24	0.5	WH/BK	1164	Accelerator Pedal Position 5V Reference 1	I	—
25	0.75	WH/RD	3201	Throttle Inlet Absolute Pressure Sensor 5V Reference	I	—

K20 Engine Control Module X1 (L96/LC8) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
26	0.8	GY	2700	A/C Pressure Sensor 5V Reference	I	—
27	0.5	YE/BK	625	Starter Enable Relay Control	I	—
28	0.5	D-GN/WH	465	Fuel Pump Primary Relay Control	I	—
29	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
30	0.5	PU/	1272	Accelerator Pedal Position Low Reference 2	I	—
31	0.75	BK/VT	2760	Intake Air Temperature Sensor Low Reference	I	—
32	0.8	L-BU/BK	6813	Coolant Temperature Sensor 2 Low Reference	I	—
33	0.5	L-BU/WH	6311	Cruise/ETC/TCC Brake Signal	I	—
34	0.5	OG/BK	1786	Transmission Park/Neutral Signal 1	I	—
35 - 37	—	—	—	Not Occupied	—	—
38	0.5	BN	1271	Accelerator Pedal Position Low Reference 1	I	—
39	—	—	—	Not Occupied	—	—
40	0.5	YE	5991	Powertrain Relay Coil Control	I	—
41 - 42	—	—	—	Not Occupied	—	—
43	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
44	—	—	—	Not Occupied	—	—
45	0.75	BN/VT	472	Intake Air Temperature Sensor Signal	I	—
46	0.8	L-GN	2032	Coolant Temperature Sensor Signal	I	—
47	0.5	OG	225	Generator Turn On Signal	I	—
48 - 49	—	—	—	Not Occupied	—	—
50	0.5	D-GN/WH	817	Vehicle Speed Signal	I	—
51	—	—	—	Not Occupied	—	—
52	0.5	BN/WH	419	Check Engine Indicator Control	I	—
53	0.5	D-GN/WH	459	A/C Compressor Clutch Relay Control	I	—
54 - 55	—	—	—	Not Occupied	—	—
56	0.5	WH	1310	EVAP Canister Vent Solenoid Control	I	—

K20 Engine Control Module X2 (L96/LC8)



1590596

Connector Part Information

Harness Type: Engine
OEM Connector: 15499466
Service Connector: 88988931
Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with BK Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575812	J-35616-64B (LT BU)	J-38125-213	Not Available	Not Available	Not Available	Not Available
II	19368324	J-35616-4A (PU)	J-38125-11A	7116-4152-02	Yazaki 9	A	5

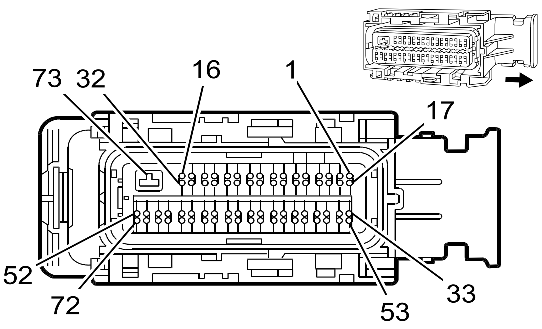
K20 Engine Control Module X2 (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.8	PU/	2121	Ignition Control 1	I	—
2	0.5	TN	1744	Fuel Injector Control 1	I	—
3	0.5	D-BU/WH	878	Fuel Injector Control 8	I	—
4	0.5	OG/BK	877	Fuel Injector Control 7	I	—
5	0.5	L-GN/BK	1745	Fuel Injector Control 2	I	—
6	0.5	YE/BK	846	Fuel Injector Control 6	I	—
7	0.5	TN/WH	845	Fuel Injector Control 5	I	—
8	0.5	L-BU/BK	844	Fuel Injector Control 4	I	—
9	0.5	PK/BK	1746	Fuel Injector Control 3	I	—
10	—	—	—	Not Occupied	—	—
11	0.8	PU/	5284	Camshaft Phaser Intake Solenoid 1	I	—
12 - 14	—	—	—	Not Occupied	—	—
15	0.5	YE	581	Throttle Actuator Control Open	I	—
16	0.5	BN	582	Throttle Actuator Control Close	I	—
17	0.8	PU/WH	2128	Ignition Control 8	I	—
18	0.8	D-GN/WH	2124	Ignition Control 4	I	—
19	0.8	BN/WH	2130	Ignition Control Low Reference Bank 2	I	—
20	0.8	GY/BK	6272	Crankshaft 60X Sensor Low Reference	I	—
21 - 23	—	—	—	Not Occupied	—	—

K20 Engine Control Module X2 (L96/LC8) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
24	0.8	BN	6266	Camshaft CAM W Ground	I	—
25	0.8	BK	2755	Oil Pressure Sensor Low Reference	I	—
26 - 27	—	—	—	Not Occupied	—	—
28	0.8	PK	1339	Run/Crank Ignition 1 Voltage	I	—
29	0.8	TN	2199	Camshaft Phaser Solenoid Low Reference	I	—
30 - 32	—	—	—	Not Occupied	—	—
33	0.8	OG	2127	Ignition Control 7	I	—
34	0.8	D-GN	2125	Ignition Control 5	I	—
35	0.8	BN	2129	Ignition Control Low Reference Bank 1	I	—
36	0.8	PU/WH	6270	Crankshaft 60X Sensor 5V Reference	I	—
37 - 39	—	—	—	Not Occupied	—	—
40	0.8	D-BU/	6259	Camshaft CAM W Control	I	—
41	0.8	GY	2705	Oil Pressure Sensor 5V Reference	I	—
42	—	—	—	Not Occupied	—	—
43	0.5	GY	2701	Throttle Position Sensor 5V Reference	I	—
44	0.5	TN	2752	Throttle Position Sensor Low Reference	I	—
45	0.5	D-GN	485	Throttle Position Sensor Signal 1	I	—
46	—	—	—	Not Occupied	—	—
47	0.8	TN	1664	Heated Oxygen Sensor Low Signal Bank 1 Sensor 1	I	—
48	0.8	TN	1667	Heated Oxygen Sensor Low Signal Bank 2 Sensor 1	I	—
49	0.8	GY	1716	Knock Sensor Low Reference 1	I	—
50	0.8	GY	2303	Knock Sensor Low Reference 2	I	—
51	—	—	—	Not Occupied	—	—
52	0.8	L-GN	3212	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 1	I	—
53	0.8	OG/WH	2122	Ignition Control 2	I	—
54	0.8	L-BU/WH	2126	Ignition Control 6	I	—
55	0.8	L-BU	2123	Ignition Control 3	I	—
56	0.8	WH/BK	6271	Crankshaft 60X Sensor Signal	I	—
57 - 59	—	—	—	Not Occupied	—	—
60	0.8	D-BU/WH	6265	Camshaft CAM W Signal	I	—
61	0.8	TN/WH	331	Oil Pressure Sensor Signal	I	—
62 - 66	—	—	—	Not Occupied	—	—
67	0.8	PU/WH	1665	Heated Oxygen Sensor High Signal Bank 1 Sensor 1	I	—
68	0.8	PU/	1666	Heated Oxygen Sensor High Signal Bank 2 Sensor 1	I	—
69	0.8	D-BU/	496	Knock Sensor Signal 1	I	—
70	0.8	L-BU	1876	Knock Sensor Signal 2	I	—
71	—	—	—	Not Occupied	—	—
72	0.8	GY/WH	3113	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 1	I	—
73	3	BK/WH	1551	Signal Ground	II	—

K20 Engine Control Module X3 (L96/LC8)



1590596

Connector Part Information

Harness Type: Engine
OEM Connector: 15497996
Service Connector: 88988372
Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with GY Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575812	J-35616-64B (LT BU)	J-38125-213	Not Available	Not Available	Not Available	Not Available
II	Not Available	No Tool Required	J-38125-215A	Not Available	Not Available	Not Available	Not Available

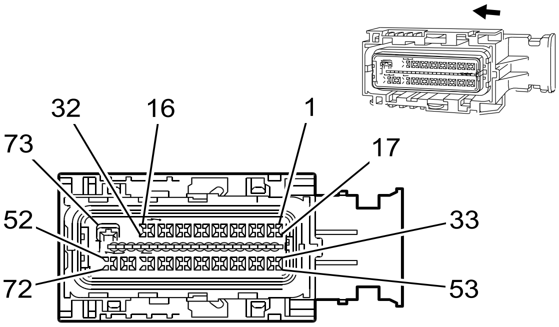
K20 Engine Control Module X3 (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 9	—	—	—	Not Occupied	—	—
10	0.5	D-GN/WH	428	EVAP Canister Purge Solenoid Control	I	—
11 - 15	—	—	—	Not Occupied	—	—
16	0.8	OG/WH	3223	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 2	I	—
17	0.5	GY	23	Generator Field Duty Cycle Signal	I	—
18 - 21	—	—	—	Not Occupied	—	—
22	0.5	BN	5360	Brake Apply Sensor Low Reference	I	—
23 - 26	—	—	—	Not Occupied	—	—
27	0.5	TN	2759	Fuel Tank Pressure Sensor Low Reference	I	—
28	0.8	GY	2704	Manifold Absolute Pressure Sensor 5V Reference	I	—
29	0.8	OG/BK	469	Manifold Absolute Pressure Sensor Low Reference	I	—
30	0.8	TN	2761	Coolant Temperature Sensor Low Reference	I	—
31	—	—	—	Not Occupied	—	—
32	0.8	GY/WH	3122	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 2	I	—
33	—	—	—	Not Occupied	—	—
34	—	WH/BK	1579	Fuel Temperature/Composition Signal	II	—

K20 Engine Control Module X3 (L96/LC8) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
35 - 37	—	—	—	Not Occupied	—	—
38	0.5	WH	5359	Brake Apply Sensor Control	I	—
39 - 42	—	—	—	Not Occupied	—	—
43	0.5	GY	2709	Fuel Tank Pressure Sensor 5V Reference	I	—
44	—	—	—	Not Occupied	—	—
45	0.8	L-GN	432	Manifold Absolute Pressure Sensor Signal	I	—
46	0.8	YE	410	Engine Coolant Temperature Sensor Signal	I	—
47 - 54	—	—	—	Not Occupied	—	—
55	0.5	OG/BK	6399	Replicated TOS Signal	I	—
56 - 57	—	—	—	Not Occupied	—	—
58	0.5	YE	5361	Brake Apply Sensor Signal	I	—
59 - 62	—	—	—	Not Occupied	—	—
63	0.5	D-GN	890	Fuel Tank Pressure Sensor Signal	I	—
64	0.5	PU/	1589	Primary Fuel Level Sensor Signal	I	—
65	0.8	PU/	1670	Heated Oxygen Sensor High Signal Bank 2 Sensor 2	I	—
66	0.8	TN	1671	Heated Oxygen Sensor Low Signal Bank 2 Sensor 2	I	—
67	0.8	PU/WH	1668	Heated Oxygen Sensor High Signal Bank 1 Sensor 2	I	—
68	0.8	TN/WH	1669	Heated Oxygen Sensor Low Signal Bank 1 Sensor 2	I	—
69 - 73	—	—	—	Not Occupied	—	—

K20 Engine Control Module X1 (LV1)



2470482

Connector Part Information

Harness Type: Engine
OEM Connector: 13611938
Service Connector: 13574782
Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with BU Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575812	J-35616-64B (LT BU)	J-38125-213	Not Available	Not Available	Not Available	Not Available
II	13579770	J-35616-4A (PU)	J-38125-11A	7116-4152-02	Yazaki 9	A	5

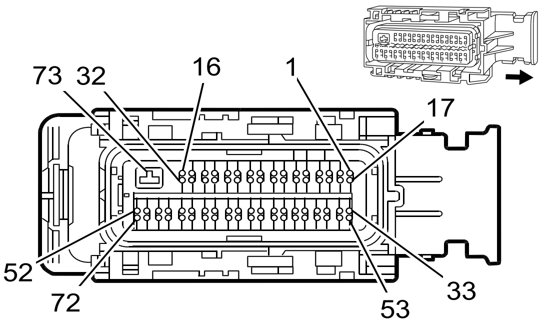
K20 Engine Control Module X1 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 3	—	—	—	Not Occupied	—	—
4	0.5	YE/WH	3200	Throttle Inlet Absolute Pressure Sensor Signal	I	—
5	0.5	GY/WH	3201	Throttle Inlet Absolute Pressure Sensor 5V Reference	I	—
6	0.5	L-GN/	380	A/C Refrigerant Pressure Sensor Signal	I	—
7 - 8	—	—	—	Not Occupied	—	—
9	0.5	BU/WH	890	Fuel Tank Pressure Sensor Signal	I	—
10	0.5	YE/RD	2709	Fuel Tank Pressure Sensor 5V Reference	I	—
11 - 12	—	—	—	Not Occupied	—	—
13	0.5	L-GN/BK	735	Outside Ambient Air Temperature Sensor Signal	I	—
14	0.5	WH/RD	1164	Accelerator Pedal Position 5V Reference 1	I	—
15	0.5	YE/WH	1161	Accelerator Pedal Position Signal 1	I	—
16 - 20	—	—	—	Not Occupied	—	—
21	0.5	BN/RD	2700	A/C Pressure Sensor 5V Reference	I	—
22	0.5	BK/BN	5514	A/C Refrigerant Pressure Sensor Low Reference	I	—
23 - 24	—	—	—	Not Occupied	—	—
25	0.5	BU/VT	1589	Primary Fuel Level Sensor Signal	I	—
26	0.5	BK/BN	2759	Fuel Tank Pressure Sensor Low Reference	I	—
27 - 29	—	—	—	Not Occupied	—	—

K20 Engine Control Module X1 (LV1) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
30	0.5	BK/D-BU	1271	Accelerator Pedal Position Low Reference 1	I	—
31	—	—	—	Not Occupied	—	—
32	0.5	WH/GY	459	A/C Compressor Clutch Relay Control	I	—
33	0.5	BN/RD	1274	Accelerator Pedal Position 5V Reference 2	I	—
34	0.5	L-GN/WH	1162	Accelerator Pedal Position Signal 2	I	—
35 - 38	—	—	—	Not Occupied	—	—
39	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
40	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
41	0.5	BU/WH	2918	Fuel Rail Pressure Sensor Signal	I	—
42 - 43	—	—	—	Not Occupied	—	—
44	0.5	L-GN/GY	465	Fuel Pump Primary Relay Control	I	—
45	—	—	—	Not Occupied	—	—
46	0.5	BN/WH	419	Check Engine Indicator Control	I	—
47	0.5	WH	5359	Brake Apply Sensor Control	I	—
48	0.5	D-BU/YE	5361	Brake Apply Sensor Signal	I	—
49 - 50	—	—	—	Not Occupied	—	—
51	0.5	VT/L-GN	439	Run/Crank Ignition 1 Voltage	I	—
52	0.75	RD/WH	440	Battery Positive Voltage	I	—
53	0.5	BK/VT	1272	Accelerator Pedal Position Low Reference 2	I	—
54 - 56	—	—	—	Not Occupied	—	—
57	0.5	WH/D-BU	6311	Cruise/ETC/TCC Brake Signal	I	—
58 - 61	—	—	—	Not Occupied	—	—
62	0.75	VT/GY	1039	Run/Crank Ignition 1 Voltage	I	—
63	0.5	YE/BK	625	Starter Enable Relay Control	I	—
64 - 65	—	—	—	Not Occupied	—	—
66	0.5	WH	1310	EVAP Canister Vent Solenoid Control	I	—
67	0.75	VT/BK	1239	Run/Crank Ignition 1 Voltage	I	—
68	0.5	BK/BN	5360	Brake Apply Sensor Low Reference	I	—
69	—	—	—	Not Occupied	—	—
70	0.5	VT/YE	5985	Accessory Wakeup Serial Data	I	—
71	—	—	—	Not Occupied	—	—
72	0.5	YE	5991	Powertrain Relay Coil Control	I	—
73	2.5	VT/GY	1439	Run/Crank Ignition 1 Voltage	II	—

K20 Engine Control Module X2 (LV1)



1590596

Connector Part Information

Harness Type: Engine
OEM Connector: 15499466
Service Connector: 88988931
Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with BK Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575812	J-35616-64B (LT BU)	J-38125-213	Not Available	Not Available	Not Available	Not Available
II	19368324	J-35616-4A (PU)	J-38125-11A	7116-4152-02	Yazaki 9	A	5

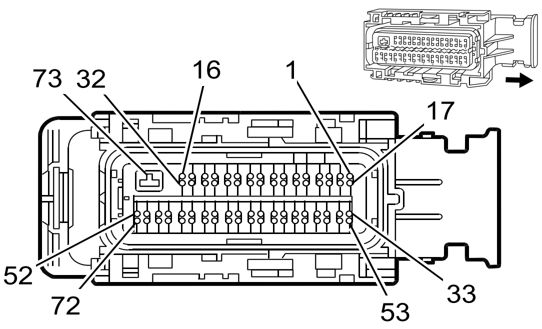
K20 Engine Control Module X2 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	BK/L-GN	2919	Fuel Rail Pressure Sensor Low Reference	I	—
4 - 9	—	—	—	Not Occupied	—	—
10	0.5	VT/WH	3110	Heated Oxygen Sensor High Signal Bank 1 Sensor 1	I	—
11	0.5	VT	3210	Heated Oxygen Sensor High Signal Bank 2 Sensor 1	I	—
12	0.5	VT/D-BU	3120	Heated Oxygen Sensor High Signal Bank 1 Sensor 2	I	—
13	0.5	VT/L-GN	3220	Heated Oxygen Sensor High Signal Bank 2 Sensor 2	I	—
14	—	—	—	Not Occupied	—	—
15	0.5	D-BU	7564	Humidity Sensor Signal	I	—
16	0.5	BN/WH	582	Throttle Actuator Control Close	I	—
17	—	—	—	Not Occupied	—	—
18	0.5	BN/RD	2917	Fuel Rail Pressure Sensor 5V Reference	I	—
19 - 25	—	—	—	Not Occupied	—	—
26	0.5	WH/BK	3111	Heated Oxygen Sensor Low Signal Bank 1 Sensor 1	I	—
27	0.5	YE/WH	3211	Heated Oxygen Sensor Low Signal Bank 2 Sensor 1	I	—

K20 Engine Control Module X2 (LV1) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
28	0.5	WH/YE	3121	Heated Oxygen Sensor Low Signal Bank 1 Sensor 2	I	—
29	0.5	YE/D-BU	3221	Heated Oxygen Sensor Low Signal Bank 2 Sensor 2	I	—
30 - 31	—	—	—	Not Occupied	—	—
32	0.5	YE	581	Throttle Actuator Control Open	I	—
33	—	—	—	Not Occupied	—	—
34	0.5	BN/RD	2701	Throttle Position Sensor 5V Reference	I	—
35	—	—	—	Not Occupied	—	—
36	0.75	VT/GY	496	Knock Sensor Signal 1	I	—
37	0.75	D-BU	1876	Knock Sensor Signal 2	I	—
38 - 40	—	—	—	Not Occupied	—	—
41	0.5	GY/WH	3113	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 1	I	—
42	0.5	GY	3122	Heated Oxygen Sensor Heater Low Control Bank 1 Sensor 2	I	—
43	0.5	L-GN	432	Manifold Absolute Pressure Sensor Signal	I	—
44	0.5	GY	2704	Manifold Absolute Pressure Sensor 5V Reference	I	—
45 - 48	—	—	—	Not Occupied	—	—
49	0.5	D-BU	6289	Induction Air Temperature Sensor Signal	I	—
50	—	—	—	Not Occupied	—	—
51	0.5	L-GN/D-BU	428	EVAP Canister Purge Solenoid Control	I	—
52	0.5	YE	492	Mass Air Flow Sensor Signal	I	—
53	0.5	D-BU/WH	225	Generator Turn On Signal	I	—
54	0.5	BK/BN	2752	Throttle Position Sensor Low Reference	I	—
55	0.5	GY	23	Generator Field Duty Cycle Signal	I	—
56	0.75	GY	1716	Knock Sensor Low Reference 1	I	—
57	0.75	BK/GY	2303	Knock Sensor Low Reference 2	I	—
58	0.5	WH/GY	1786	Transmission Park/Neutral Signal 1	I	—
59	0.5	D-BU/BK	179	Oil Pump Command Signal	I	—
60	0.5	BN/L-GN	1174	Oil Level Switch Signal	I	—
61	0.5	L-GN	3212	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 1	I	—
62	0.5	WH/BN	3223	Heated Oxygen Sensor Heater Low Control Bank 2 Sensor 2	I	—
63	0.5	OG/BK	469	Manifold Absolute Pressure Sensor Low Reference	I	—
64	—	—	—	Not Occupied	—	—
65	0.5	BK/YE	407	Sensor Low Reference	I	—
66 - 68	—	—	—	Not Occupied	—	—
69	0.5	WH/YE	3202	Throttle Inlet Absolute Pressure Sensor Low Reference	I	—
70	0.5	D-BU/WH	3630	Throttle Position Sensor (SENT1) Signal	I	—
71 - 72	—	—	—	Not Occupied	—	—
73	3	BK/WH	1551	Signal Ground	II	—

K20 Engine Control Module X3 (LV1)



1590596

Connector Part Information

Harness Type: Engine
OEM Connector: 15497996
Service Connector: 88988372
Description: 73-Way F 0.64, 2.8 Series, Sealed (BK with GY Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575812	J-35616-64B (LT BU)	J-38125-213	Not Available	Not Available	Not Available	Not Available
II	19368324	J-35616-4A (PU)	J-38125-11A	7116-4152-02	Yazaki 9	A	5

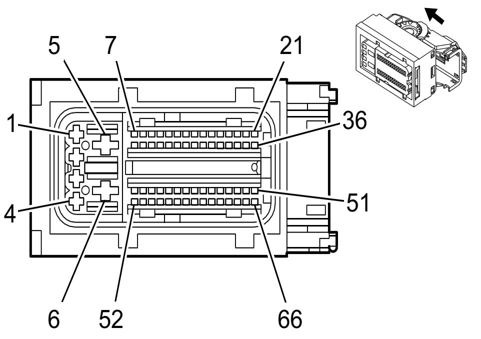
K20 Engine Control Module X3 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/BN	331	Oil Pressure Sensor Signal	I	—
2	0.5	WH/RD	2705	Oil Pressure Sensor 5V Reference	I	—
3 - 7	—	—	—	Not Occupied	—	—
8	0.5	BU	410	Engine Coolant Temperature Sensor Signal	I	—
9	—	—	—	Not Occupied	—	—
10	0.5	VT/D-BU	6270	Crankshaft 60X Sensor 5V Reference	I	—
11 - 12	—	—	—	Not Occupied	—	—
13	0.5	BU/WH	2122	Ignition Control 2	I	—
14	0.5	L-GN/D-BU	2123	Ignition Control 3	I	—
15	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	I	—
16	0.75	YE	7301	High Pressure Fuel Pump Actuator High - Control	I	—
17	0.5	BK/VT	2755	Oil Pressure Sensor Low Reference	I	—
18 - 23	—	—	—	Not Occupied	—	—
24	0.5	BK/BN	2761	Coolant Temperature Sensor Low Reference	I	—
25	0.5	BK/VT	6272	Crankshaft 60X Sensor Low Reference	I	—
26	0.5	L-GN	6271	Crankshaft 60X Sensor Signal	I	—
27	0.5	YE/D-BU	2124	Ignition Control 4	I	—
28	0.5	BU/GY	2125	Ignition Control 5	I	—

K20 Engine Control Module X3 (LV1) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
29	0.5	BN/D-BU	2126	Ignition Control 6	I	—
30	0.5	BU/VT	2121	Ignition Control 1	I	—
31	0.5	BK/D-BU	2129	Ignition Control Low Reference Bank 1	I	—
32	0.75	VT/BK	7300	High Pressure Fuel Pump Actuator Low - Control	I	—
33	0.5	YE/VT	5275	Camshaft Position Intake Sensor 1	I	—
34	0.5	GY/D-BU	5300	Camshaft Position Intake Sensor Control 1	I	—
35 - 38	—	—	—	Not Occupied	—	—
39	0.5	VT/BN	5284	Camshaft Phaser Intake Solenoid 1	I	—
40 - 45	—	—	—	Not Occupied	—	—
46	0.75	D-BU/	4804	Direct Fuel Injector (DFI) High Voltage Control Cylinder 4	I	—
47	0.75	L-GN	4803	Direct Fuel Injector (DFI) High Voltage Control Cylinder 3	I	—
48	0.75	VT/L-GN	4806	Direct Fuel Injector (DFI) High Voltage Control Cylinder 6	I	—
49	—	—	—	Not Occupied	—	—
50	0.75	WH/L-GN	4805	Direct Fuel Injector (DFI) High Voltage Control Cylinder 5	I	—
51	0.75	BU	4802	Direct Fuel Injector (DFI) High Voltage Control Cylinder 2	I	—
52	0.75	BN	4801	Direct Fuel Injector (DFI) High Voltage Control Cylinder 1	I	—
53	0.5	BK/L-GN	5301	Camshaft Position Intake Sensor Low Reference 1	I	—
54 - 58	—	—	—	Not Occupied	—	—
59	0.5	BK/BN	6753	Cam Phaser W Low Reference	I	—
60 - 65	—	—	—	Not Occupied	—	—
66	0.75	BU/WH	4904	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4	I	—
67	0.75	L-GN/GY	4903	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3	I	—
68	0.75	VT/GY	4906	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 6	I	—
69	—	—	—	Not Occupied	—	—
70	0.75	L-GN/WH	4905	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 5	I	—
71	0.75	BU/GY	4902	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 2	I	—
72	0.75	BN/WH	4901	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1	I	—
73	3	BK/WH	1551	Signal Ground	II	—

K20 Engine Control Module X1 (LWN)



2498868

Connector Part Information

Harness Type: Engine
OEM Connector: 35059716
Service Connector: 19370822
Description: 66-Way F 0.64 MTS-B, 2.8 ATS, 6.3 Ducon Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13579752	J-35616-4A (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
II	13584448	J-35616-64B (LT BU)	J-38125-12A	1719532-5	Lear 7	J	J
III	13584530	J-35616-4A (PU)	J-38125-36	4-964273-1	Yazaki 15	C	5
IV	19369848	J-35616-64B (LT BU)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

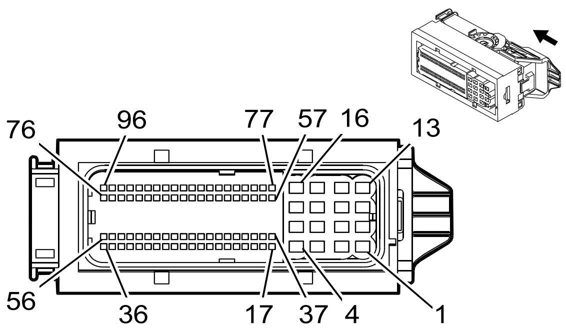
K20 Engine Control Module X1 (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2.5	VT/GY	1439	Run/Crank Ignition 1 Voltage	III	—
2	0.5	VT/D-BU	5291	Powertrain Main Relay Fused Supply 2	I	—
3	0.5	VT/D-BU	5292	Powertrain Main Relay Fused Supply 3	I	—
4	0.5	RD/BN	440	Battery Positive Voltage	I	—
5	6	RD/YE	2	Battery Positive Voltage	IV	—
6	6	BK/WH	451	Signal Ground	IV	—
7	0.5	VT/YE	5985	Accessory Wakeup Serial Data	II	—
8 - 10	—	—	—	Not Occupied	—	—
11	0.5	BU/YE	6861	Water In Fuel Sensor Signal	II	—
12	—	—	—	Not Occupied	—	—
13	0.5	WH/RD	1164	Accelerator Pedal Position 5V Reference 1	II	—
14	0.5	BN/RD	1274	Accelerator Pedal Position 5V Reference 2	II	—
15	0.5	L-GN/WH	1162	Accelerator Pedal Position Signal 2	II	—
16	0.5	BK/VT	1272	Accelerator Pedal Position Low Reference 2	II	—
17	0.5	WH/BK	2366	Cooling Fan Control Relay Speed Signal	II	—
18	0.5	BN/WH	419	Check Engine Indicator Control	II	—

K20 Engine Control Module X1 (LWN) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
19	0.5	L-GN/BN	507	Wait To Start Indicator Control	II	—
20	—	—	—	Not Occupied	—	—
21	0.5	YE	2928	Fuel Metering Valve High Control	II	—
22	0.5	VT/L-GN	439	Run/Crank Ignition 1 Voltage	II	—
23	0.5	WH/D-BU	6311	Cruise/ETC/TCC Brake Signal	II	—
24	0.5	WH/GY	1786	Transmission Park/Neutral Signal 1	II	—
25	0.5	L-GN/WH	492	Mass Air Flow Sensor Signal	II	—
26	0.5	BU/VT	2364	Cooling Fan Speed Signal	II	—
27	0.5	BK/D-BU	1271	Accelerator Pedal Position Low Reference 1	II	—
28	0.5	YE/WH	1161	Accelerator Pedal Position Signal 1	II	—
29 - 32	—	—	—	Not Occupied	—	—
33	0.5	WH/GY	459	A/C Compressor Clutch Relay Control	II	—
34 - 35	—	—	—	Not Occupied	—	—
36	0.5	BN/BK	2929	Fuel Metering Valve Low Control	II	—
37 - 38	—	—	—	Not Occupied	—	—
39	0.5	WH	7494	High Speed GMLAN Serial Data (-)3	II	—
40	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	II	—
41 - 42	—	—	—	Not Occupied	—	—
43	0.5	BK/BN	5360	Brake Apply Sensor Low Reference	II	—
44	0.5	WH	5359	Brake Apply Sensor Control	II	—
45	0.5	WH/D-BU	6289	Induction Air Temperature Sensor Signal	II	—
46	0.5	BN/RD	2700	A/C Pressure Sensor 5V Reference	II	—
47	0.5	L-GN	380	A/C Refrigerant Pressure Sensor Signal	II	—
48	0.5	BK/BN	5514	A/C Refrigerant Pressure Sensor Low Reference	II	—
49	—	—	—	Not Occupied	—	—
50	0.5	L-GN/GY	465	Fuel Pump Primary Relay Control	II	—
51	0.5	YE	5991	Powertrain Relay Coil Control	II	—
52 - 53	—	—	—	Not Occupied	—	—
54	0.5	D-BU/BK	7493	High Speed GMLAN Serial Data (+)3	II	—
55	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	II	—
56 - 58	—	—	—	Not Occupied	—	—
59	0.5	D-BU/YE	5361	Brake Apply Sensor Signal	II	—
60	0.5	BK/VT	2760	Intake Air Temperature Sensor Low Reference	II	—
61 - 63	—	—	—	Not Occupied	—	—
64	0.75	VT/BN	2927	Hydrocarbon Injector Low Control	II	—
65	—	—	—	Not Occupied	—	—
66	0.5	YE/BK	625	Starter Enable Relay Control	II	—

K20 Engine Control Module X2 (LWN)



4115094

Connector Part Information

Harness Type: Engine
OEM Connector: 35059745
Service Connector: 19370825
Description: 96-Way F 0.64 MTS-B, 2.8 ATS Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13584448	J-35616-64B (LT BU)	J-38125-12A	1719532-5	Lear 7	J	J
II	13584530	J-35616-4A (PU)	J-38125-36	4-964273-1	Yazaki 15	C	5
III	13584530	J-35616-4A (PU)	J-38125-36	4-964273-1	Yazaki 15	E	1

K20 Engine Control Module X2 (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	D-BU/GY	4902	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 2	III	—
2	1.5	L-GN/GY	4903	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3	III	—
3	1.5	D-BU/WH	4904	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4	III	—
4	1.5	BN/WH	4901	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1	III	—
5	1.5	D-BU/	4802	Direct Fuel Injector (DFI) High Voltage Control Cylinder 2	III	—
6	1.5	L-GN	4803	Direct Fuel Injector (DFI) High Voltage Control Cylinder 3	III	—
7	1.5	GY/D-BU	4804	Direct Fuel Injector (DFI) High Voltage Control Cylinder 4	III	—
8	1.5	BN	4801	Direct Fuel Injector (DFI) High Voltage Control Cylinder 1	III	—
9 - 12	—	—	—	Not Occupied	—	—
13	2	GY/BN	1582	Glow Plug Control 2	II	—
14	2	GY/YE	1584	Glow Plug Control 4	II	—
15	2	GY/L-GN	1583	Glow Plug Control 3	II	—

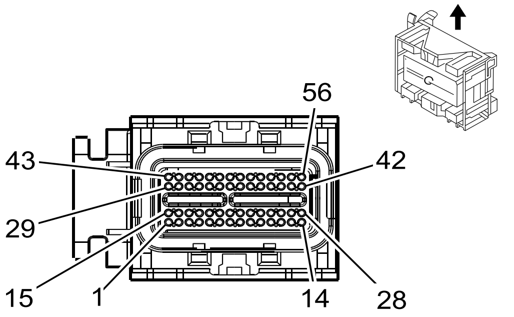
K20 Engine Control Module X2 (LWN) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
16	2	GY/D-BU	1581	Glow Plug Control 1	II	—
17	0.5	BK/VT	2755	Oil Pressure Sensor Low Reference	I	—
18	0.5	YE/BN	331	Oil Pressure Sensor Signal	I	—
19	0.5	WH/RD	2705	Oil Pressure Sensor 5V Reference	I	—
20 - 25	—	—	—	Not Occupied	—	—
26	0.5	BN	9348	Induction Air Temperature Sensor 3 Signal	I	—
27	0.5	BN/GY	7072	Sensor Fuel Temperature 1 Signal	I	—
28 - 29	—	—	—	Not Occupied	—	—
30	0.5	D-BU/	410	Engine Coolant Temperature Sensor Signal	I	—
31	0.5	BN	3681	Charge Air Cooler Outlet Temperature Sensor Signal	I	—
32	0.5	L-GN	3683	Charge Air Cooler Inlet Temperature Sensor Signal	I	—
33	—	—	—	Not Occupied	—	—
34	0.75	D-BU/WH	225	Generator Turn On Signal	I	—
35 - 37	—	—	—	Not Occupied	—	—
38	0.5	BN/YE	2161	Fuel Rail Pressure Sensor 2 Signal	I	—
39	—	—	—	Not Occupied	—	—
40	0.5	GY/D-BU	5300	Camshaft Position Intake Sensor Control 1	I	—
41	0.5	YE/VT	5275	Camshaft Position Intake Sensor 1	I	—
42	0.5	BK/L-GN	5301	Camshaft Position Intake Sensor Low Reference 1	I	—
43	0.5	BN/RD	2701	Throttle Position Sensor 5V Reference	I	—
44	0.5	D-BU/WH	3630	Throttle Position Sensor (SENT1) Signal	I	—
45	0.5	BK/BN	2752	Throttle Position Sensor Low Reference	I	—
46	—	—	—	Not Occupied	—	—
47	0.5	BN/WH	7073	Sensor Fuel Temperature 1 Low Reference	I	—
48 - 49	—	—	—	Not Occupied	—	—
50	0.5	BK/BN	2761	Coolant Temperature Sensor Low Reference	I	—
51	0.5	YE/D-BU	3680	Charge Air Cooler Outlet Temperature Sensor Low Reference	I	—
52	0.5	YE/BK	3682	Charge Air Cooler Inlet Temperature Sensor Low Reference	I	—
53 - 55	—	—	—	Not Occupied	—	—
56	0.75	BN/D-BU	2926	Hydrocarbon Injector High Control	I	—
57	0.5	BK/BN	2753	Exhaust Gas Recirculation Sensor Low Reference	I	—
58	0.5	BN/WH	5763	Exhaust Gas Recirculation Valve Sensor Signal	I	—
59	0.5	D-BU/RD	5047	Exhaust Gas Recirculation 5V Reference 1	I	—
60	0.5	BK/BN	6141	Cooling Fan Speed Low Reference	I	—
61	—	—	—	Not Occupied	—	—
62	0.5	GY/RD	2365	Cooling Fan Speed 5V Reference	I	—
63 - 66	—	—	—	Not Occupied	—	—
67	0.75	GY	23	Generator Field Duty Cycle Signal	I	—
68	—	—	—	Not Occupied	—	—
69	0.5	BK/L-GN	2919	Fuel Rail Pressure Sensor Low Reference	I	—

K20 Engine Control Module X2 (LWN) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
70	0.5	VT/BK	5746	Exhaust Gas Recirculation Valve Motor Low Signal	I	—
71	0.5	WH/VT	5764	Exhaust Gas Recirculation Valve Motor High Signal	I	—
72	0.5	GY/D-BU	5930	Variable Nozzle Turbo Solenoid High Signal	I	—
73	0.5	WH/BK	5931	Variable Nozzle Turbo Solenoid Low Signal	I	—
74 - 75	—	—	—	Not Occupied	—	—
76	0.5	BK/YE	2834	Fuel Rail Pressure Solenoid Low Reference	I	—
77 - 79	—	—	—	Not Occupied	—	—
80	0.5	BK/L-GN	469	Manifold Absolute Pressure Sensor Low Reference	I	—
81	0.5	L-GN/WH	432	Manifold Absolute Pressure Sensor Signal	I	—
82	0.5	GY/RD	2704	Manifold Absolute Pressure Sensor 5V Reference	I	—
83	0.5	VT/D-BU	6270	Crankshaft 60X Sensor 5V Reference	I	—
84	0.5	L-GN	6271	Crankshaft 60X Sensor Signal	I	—
85	0.5	BK/VT	6272	Crankshaft 60X Sensor Low Reference	I	—
86	0.5	BN/L-GN	1174	Oil Level Switch Signal	I	—
87	—	—	—	Not Occupied	—	—
88	0.5	D-BU/WH	2918	Fuel Rail Pressure Sensor Signal	I	—
89	0.5	BN/RD	2917	Fuel Rail Pressure Sensor 5V Reference	I	—
90	0.5	BN/WH	582	Throttle Actuator Control Close	I	—
91	0.5	YE	581	Throttle Actuator Control Open	I	—
92 - 93	—	—	—	Not Occupied	—	—
94	0.5	YE/D-BU	3231	Exhaust Gas Recirculation Cooler Bypass Solenoid Control	I	—
95	0.5	GY/D-BU	3230	Exhaust Gas Recirculation Cooler Bypass Solenoid Control	I	—
96	0.5	D-BU/WH	2530	Fuel Rail Pressure Solenoid Control	I	—

K20 Engine Control Module X3 (LWN)



784851

Connector Part Information

Harness Type: Engine
OEM Connector: 13510837
Service Connector: 88988373
Description: 56-Way F 0.64 Series, Sealed (BU with BU Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575812	J-35616-64B (LT BU)	J-38125-213	Not Available	Not Available	Not Available	Not Available

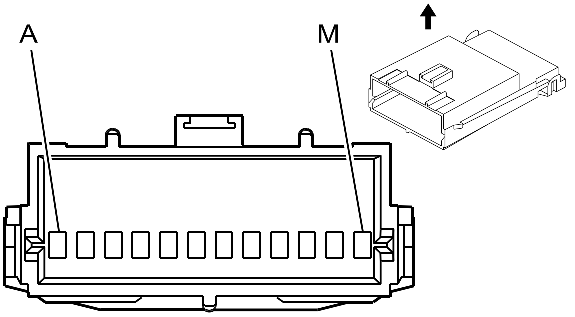
K20 Engine Control Module X3 (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/WH	3100	DEF Dosing Valve Low Control	I	—
2	—	—	—	Not Occupied	—	—
3	0.5	BK/L-GN	6281	Fuel Level Sensor Low Reference	I	—
4 - 5	—	—	—	Not Occupied	—	—
6	0.5	YE/WH	3200	Throttle Inlet Absolute Pressure Sensor Signal	I	—
7	0.5	WH/RD	3201	Throttle Inlet Absolute Pressure Sensor 5V Reference	I	—
8	0.5	BK/YE	407	Sensor Low Reference	I	—
9	0.5	BK/VT	3661	Exhaust Gas Temperature Sensor 5 Low Reference	I	—
10	0.5	BK/D-BU	6274	Exhaust Gas Recirculation Temperature Sensor Low Reference	I	—
11	0.5	BK/GY	3659	Exhaust Gas Temperature Sensor 4 Low Reference	I	—
12	0.5	BK/L-GN	3657	Exhaust Gas Temperature Sensor 3 Low Reference	I	—
13	0.5	BK/D-BU	6783	Exhaust Gas Temperature Sensor 2 Low Reference	I	—
14	0.5	D-BU/WH	5277	Exhaust Gas Temperature Sensor 1	I	—
15	0.5	BN	3099	DEF Dosing Valve High Control	I	—
16 - 17	—	—	—	Not Occupied	—	—
18	0.5	BU/VT	1589	Primary Fuel Level Sensor Signal	I	—

K20 Engine Control Module X3 (LWN) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
19	0.5	BK/YE	6275	Exhaust Gas Recirculation Temperature Sensor 2 Low Reference	I	—
20	0.5	YE/L-GN	3236	Exhaust Gas Recirculation Temperature Sensor 2 Signal	I	—
21	0.5	GY/RD	5928	Variable Nozzle Turbo Position Sensor 5V Reference	I	—
22	0.5	L-GN/BK	735	Outside Ambient Air Temperature Sensor Signal	I	—
23	0.5	D-BU/GY	3660	Exhaust Gas Temperature Sensor 5 Signal	I	—
24	0.5	WH/BN	3237	Exhaust Gas Recirculation Temperature Sensor Signal	I	—
25	0.5	VT/BN	3658	Exhaust Gas Temperature Sensor 4 Signal	I	—
26	0.5	GY/L-GN	5378	Exhaust Gas Temperature Sensor 3	I	—
27	0.5	BK/BN	6782	Exhaust Gas Temperature Sensor 1 Low Reference	I	—
28	0.5	D-BU/L-GN	5377	Exhaust Gas Temperature Sensor 2	I	—
29	—	—	—	Not Occupied	—	—
30	0.5	YE/D-BU	1497	Crankcase Ventilation (Blowby) Heater Control Signal	I	—
31	—	—	—	Not Occupied	—	—
32	0.5	BN/GY	4008	Humidity Sensor Signal	I	—
33	0.5	BK/BN	5929	Variable Nozzle Turbo Position Sensor Low Reference	I	—
34 - 42	—	—	—	Not Occupied	—	—
43	0.5	L-GN/D-BU	3889	DEF Power Module Relay Control	I	—
44	—	—	—	Not Occupied	—	—
45	0.5	BU	3017	Fuel Heater Relay Control 1	I	—
46	0.5	VT/YE	5947	Variable Nozzle Turbo Position Sensor Signal	I	—
47 - 49	—	—	—	Not Occupied	—	—
50	0.5	WH/RD	6054	Exhaust Pressure Sensor 5V Reference 1	I	—
51	0.5	D-BU/	6053	Exhaust Pressure Sensor Signal 1	I	—
52	0.5	BK/YE	6055	Exhaust Pressure Sensor Low Reference 1	I	—
53 - 56	—	—	—	Not Occupied	—	—

K33A HVAC Control Module - Auxiliary



328486

Connector Part Information

Harness Type: Headliner
OEM Connector: 12040747
Service Connector: 12101938
Description: 12-Way P/C Edgeboard Standard Series (BK)

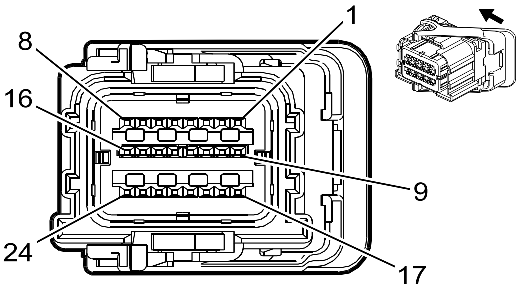
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19330178	J-35616-4A (PU)	J-38125-12A	12040511	Delphi 3	E	A

K33A HVAC Control Module - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	PU/	5260	Dual Logic Module Front Temperature Signal	I	—
B	0.35	OG	2775	Rear Air Temperature Motor Control	I	—
C	0.35	BN	5263	Dual Logic Module Rear Temperature Signal	I	—
D	0.35	PU/WH	5264	Dual Logic Module Rear Mode Signal	I	—
E	0.35	TN	5261	Dual Logic Module Front Mode Signal	I	—
F	0.35	GY	2599	Rear Mode Motor Signal	I	—
G	—	—	—	Not Occupied	—	—
H	0.35	BK	1850	Ground	I	—
J	0.35	BN	341	Run Ignition 3 Voltage	I	—
K	—	—	—	Not Occupied	—	—
L	0.35	PK/BK	5265	Dual Logic Module Rear Control Signal	I	—
M	0.35	YE	5262	Dual Logic Module Rear Control Enable Signal	I	—

K36 Inflatable Restraint Sensing and Diagnostic Module X1



3240106

Connector Part Information

Harness Type: Body
OEM Connector: 13859806
Service Connector: 13579314
Description: 24-Way F 0.64 Series, Sealed (YE)

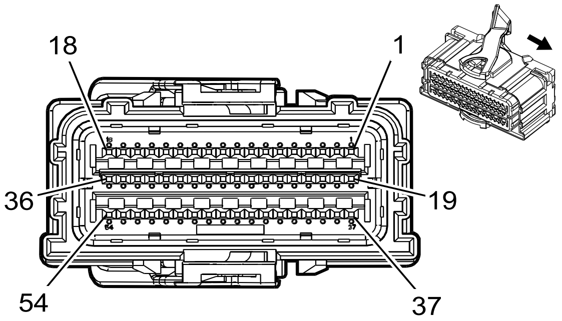
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19328872	J-35616-64B (LT BU)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
II	19368490	J-35616-64B (LT BU)	J-38125-11A	Not Available	Not Available	Not Available	Not Available

K36 Inflatable Restraint Sensing and Diagnostic Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	BN	3020	Steering Wheel Module Stage 1 Low Control	II	—
4	0.5	TN	3021	Steering Wheel Module Stage 1 High Control	II	—
5	0.5	YE	3025	Passenger IP Module Stage 1 High Control	II	—
6	0.5	OG	3024	Passenger IP Module Stage 1 Low Control	II	—
7 - 8	—	—	—	Not Occupied	—	—
9	0.5	RD/WH	3440	Battery Positive Voltage	II	—
10 - 12	—	—	—	Not Occupied	—	—
13	0.5	PK	353	Passenger IP Module Suppression Indicator Control	II	—
14	0.5	TN/BK	371	Passenger IP Module Disable Switch Signal	II	—
15	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
16	—	—	—	Not Occupied	—	—
17	0.35	PK	1139	Run/Crank Ignition 1 Voltage	I	—
18	—	—	—	Not Occupied	—	—
19	0.5	BK/WH	1751	Signal Ground	II	—
20 - 24	—	—	—	Not Occupied	—	—

K36 Inflatable Restraint Sensing and Diagnostic Module X2



2817420

Connector Part Information

- Harness Type: Body
- OEM Connector: 13914358
- Service Connector: 19301526
- Description: 54-Way F 0.64 Series, Sealed (YE)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19368490	J-35616-64B (LT BU)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
II	Not Available	No Tool Required	J-38125-215A	Not Available	Not Available	Not Available	Not Available

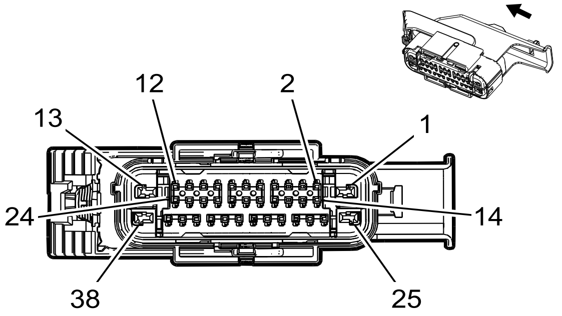
K36 Inflatable Restraint Sensing and Diagnostic Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 10	—	—	—	Not Occupied	—	—
11	0.5	TN/BK	7016	Right Rear Head Curtain Module Low Control	I	—
12	0.5	L-BU	7015	Right Rear Head Curtain Module High Control	I	—
13	0.5	BN	2137	Left Front Side Impact Module High Control	I	—
14	0.5	YE/BK	2138	Left Front Side Impact Module Low Control	I	—
15	0.5	L-GN	2136	Right Front Side Impact Module Low Control	I	—
16	0.5	TN/WH	2135	Right Front Side Impact Module High Control	I	—
17	0.5	PU/WH	5019	Left Front Head Curtain Module High Control	I	—
18	0.5	PK	5020	Left Front Head Curtain Module Low Control	I	—
19	0.5	WH	2132	Left Front Side Impact Sensing Module Signal	I	—
20	0.5	PU/WH	6628	Left Front Side Impact Sensing Module Low Reference	I	—
21	0.5	WH/BK	6629	Right Front Side Impact Sensing Module Low Reference	I	—
22	0.5	D-GN	2134	Right Front Side Impact Sensing Module Signal	I	—
23 - 24	—	—	—	Not Occupied	—	—
25	0.5	D-BU/WH	6619	Middle Front Discriminating Sensor Low Reference	I	—
26	0.5	BN/WH	6618	Middle Front Discriminating Sensor Signal	I	—
27	0.5	D-GN/WH	6620	Left Middle Side Impact Sensing Module Signal	I	—

K36 Inflatable Restraint Sensing and Diagnostic Module X2 (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
28	0.5	GY/BK	6621	Left Middle Side Impact Sensing Module Low Reference	I	—
29	0.5	L-GN/WH	6625	Right Middle Side Impact Sensing Module Low Reference	I	—
30	0.5	L-BU/BK	6624	Right Middle Side Impact Sensing Module Signal	I	—
31 - 36	—	—	—	Not Occupied	—	—
37	0.5	TN/WH	2118	Driver Seat Belt Pretensioner High Control	I	—
38	0.5	OG/BK	2119	Driver Seat Belt Pretensioner Low Control	I	—
39	0.5	OG	2117	Passenger Seat Belt Pretensioner Low Control	I	—
40	0.5	L-GN	2116	Passenger Seat Belt Pretensioner High Control	I	—
41	0.5	TN/WH	238	Driver Seat Belt Switch Signal	I	—
42	—	—	—	Not Occupied	—	—
43	0.5	PK	5057	Seat Position Switch Low Reference	I	—
44	—	L-BU/	1361	Passenger Seat Belt Switch Low Reference	II	—
45	—	OG/	1362	Passenger Seat Belt Switch Signal	II	—
46 - 52	—	—	—	Not Occupied	—	—
53	0.5	YE/BK	5021	Right Front Head Curtain Module High Control	I	—
54	0.5	WH/BK	5022	Right Front Head Curtain Module Low Control	I	—

K38 Chassis Control Module



2546969

Connector Part Information

Harness Type: Chassis
OEM Connector: 13638773
Service Connector: 13574909
Description: 38-Way F 0.64, 2.8, 6.3 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575408	J-35616-4A (PU)	J-38125-553	Not Available	Not Available	Not Available	Not Available
II	13578883	J-35616-64B (LT BU)	J-38125-215A	SAITS-A03T-M064	Yazaki 14	9	9

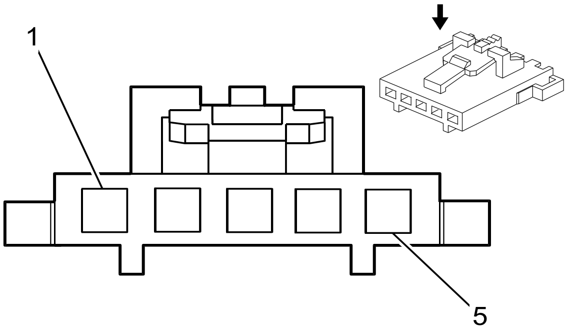
K38 Chassis Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	3	RD/WH	1940	Battery Positive Voltage	I	—
2 - 4	—	—	—	Not Occupied	—	—
5	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	II	—
6	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	II	—
7	—	—	—	Not Occupied	—	—
8	0.5	VT/YE	5985	Accessory Wakeup Serial Data	II	—
9	—	—	—	Not Occupied	—	—
10	0.5	BU/WH	7446	Fuel Line Pressure Sensor Signal	II	—
11 - 12	—	—	—	Not Occupied	—	—
13	2.5	GY	120	Fuel Pump Control	I	—
14 - 16	—	—	—	Not Occupied	—	—
17	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	II	—
18	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	II	—
19	—	—	—	Not Occupied	—	—
20	0.5	L-GN/GY	465	Fuel Pump Primary Relay Control	II	—
21	0.5	VT/GY	2739	Run/Crank Ignition 1 Voltage	II	—
22	0.5	BN/RD	7445	Fuel Line Pressure Sensor 5V Reference	II	—
23	0.5	BK/YE	7447	Fuel Line Pressure Sensor Low Reference	II	—
24	0.5	BK	1350	Ground	II	—

K38 Chassis Control Module (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
25	2	BK	2150	Ground	I	—
26 - 37	—	—	—	Not Occupied	—	—
38	2.5	BK/L-GN	1580	Fuel Pump Low Reference	I	—

K64 Content Theft Deterrent Control Module



1593355

Connector Part Information

Harness Type: Steering Column
OEM Connector: 15383337
Service Connector: Service by Harness - See Part Catalog
Description: 5-Way F SL Series (BK)

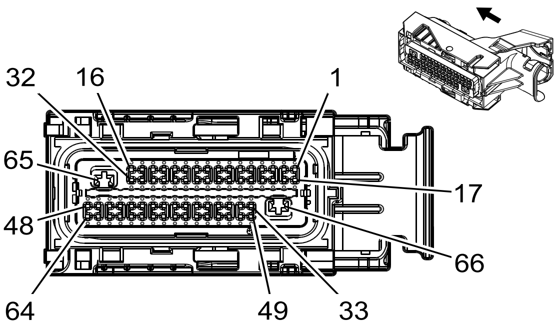
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

K64 Content Theft Deterrent Control Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	RD/WH	540	Battery Positive Voltage	I	—
2	—	BN	4	Accessory Ignition Voltage	I	—
3	—	BK/WH	351	Signal Ground	I	—
4	—	D-GN	5060	Low Speed GMLAN Serial Data	I	—
5	—	—	—	Not Occupied	—	—

K71 Transmission Control Module (LV1)



Connector Part Information

Harness Type: Engine
OEM Connector: 33168232
Service Connector: 19329822
Description: 66-Way F 0.64, 2.8 Series, Sealed (BK with BK Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575812	J-35616-64B (LT BU)	J-38125-213	Not Available	Not Available	Not Available	Not Available
II	13579769	J-35616-4A (PU)	J-38125-11A	Not Available	Not Available	Not Available	Not Available

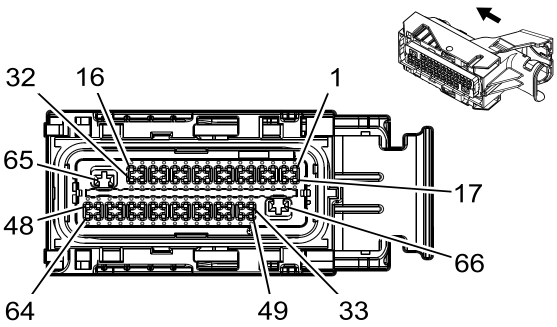
K71 Transmission Control Module (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-BU/	4507	Transmission Clutch H Control	I	—
2	0.5	BU/WH	6401	Clutch B Control	I	—
3	0.5	GY/L-GN	6403	Clutch D Control	I	—
4 - 6	—	—	—	Not Occupied	—	—
7	0.5	VT/WH	4170	Transmission Position Sensor B 9V Reference	I	—
8	0.5	VT	4171	Transmission Position Sensor A 9V Reference	I	—
9 - 12	—	—	—	Not Occupied	—	—
13	0.5	L-GN/VT	4510	Transmission Intermediate Speed Signal	I	—
14	0.5	GY/D-BU	6358	Output Speed Signal	I	—
15	0.5	L-GN	6353	Input Speed Signal	I	—
16	—	—	—	Not Occupied	—	—
17	0.5	WH	4508	Transmission Clutch G Control	I	—
18	0.5	BN	6400	Clutch A Control	I	—
19	0.5	GY	6402	Clutch C Control	I	—
20	0.5	YE	6404	Clutch E Control	I	—
21	0.5	L-GN/WH	6380	TCC On/Off Solenoid A Control	I	—
22	0.5	YE/BN	6210	TCC On/Off Solenoid B Control	I	—
23 - 24	—	—	—	Not Occupied	—	—
25	0.5	WH/BK	3927	IMS Mode Switch Low Reference	I	—

K71 Transmission Control Module (LV1) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
26 - 27	—	—	—	Not Occupied	—	—
28	0.5	OG/BK	586	Transmission Oil Temperature Sensor Low Reference	I	—
29 - 32	—	—	—	Not Occupied	—	—
33	0.5	L-GN/GY	6387	Transmission High Side Driver 1 Signal Driver	I	—
34	—	—	—	Not Occupied	—	—
35	0.5	VT/BK	2139	Run/Crank Ignition 1 Voltage	I	—
36	—	—	—	Not Occupied	—	—
37	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
38	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
39 - 46	—	—	—	Not Occupied	—	—
47	0.5	GY/YE	4169	PRNDL S Signal	I	—
48	—	—	—	Not Occupied	—	—
49	0.75	GY/BN	6388	Transmission High Side Driver 2 Signal	I	—
50	—	—	—	Not Occupied	—	—
51	0.5	VT/YE	5985	Accessory Wakeup Serial Data	I	—
52	—	—	—	Not Occupied	—	—
53	0.5	BU/WH	2500	High Speed GMLAN Serial Data (+) 1	I	—
54	0.5	WH/BK	2501	High Speed GMLAN Serial Data (-) 1	I	—
55 - 58	—	—	—	Not Occupied	—	—
59	0.5	GY/WH	4168	PRNDL P Signal	I	—
60	0.5	WH	5983	PRNDL C Signal	I	—
61	0.5	GY/BN	5982	PRNDL B Signal	I	—
62	0.5	VT/D-BU	5981	PRNDL A Signal	I	—
63	0.5	BN/WH	585	Transmission Oil Temperature Sensor Signal	I	—
64	—	—	—	Not Occupied	—	—
65	0.75	BK/WH	1551	Signal Ground	II	—
66	0.75	RD/WH	1840	Battery Positive Voltage	II	—

K71 Transmission Control Module (LWN)



3621452

Connector Part Information

Harness Type: Engine
OEM Connector: 33168232
Service Connector: 19329822
Description: 66-Way F 0.64, 2.8 Series, Sealed (BK with BK Terminal Position Assurance)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575812	J-35616-64B (LT BU)	J-38125-213	Not Available	Not Available	Not Available	Not Available
II	13579769	J-35616-4A (PU)	J-38125-11A	Not Available	Not Available	Not Available	Not Available

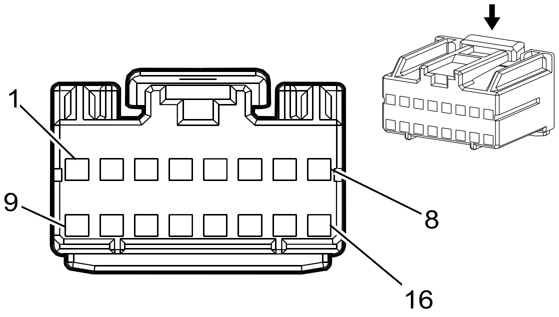
K71 Transmission Control Module (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/D-BU	4507	Transmission Clutch H Control	I	—
2	0.5	D-BU/	6401	Clutch B Control	I	—
3	0.5	GY/L-GN	6403	Clutch D Control	I	—
4 - 6	—	—	—	Not Occupied	—	—
7	0.5	YE/L-GN	4170	Transmission Position Sensor B 9V Reference	I	—
8	0.5	YE/D-BU	4171	Transmission Position Sensor A 9V Reference	I	—
9 - 12	—	—	—	Not Occupied	—	—
13	0.5	L-GN/VT	4510	Transmission Intermediate Speed Signal	I	—
14	0.5	GY/D-BU	6358	Output Speed Signal	I	—
15	0.5	L-GN/YE	6353	Input Speed Signal	I	—
16	—	—	—	Not Occupied	—	—
17	0.5	WH	4508	Transmission Clutch G Control	I	—
18	0.5	BN	6400	Clutch A Control	I	—
19	0.5	GY	6402	Clutch C Control	I	—
20	0.5	YE/BN	6404	Clutch E Control	I	—
21	0.5	L-GN/WH	6380	TCC On/Off Solenoid A Control	I	—
22	0.5	YE/BN	6210	TCC On/Off Solenoid B Control	I	—
23 - 24	—	—	—	Not Occupied	—	—
25	0.5	BK/GY	3927	IMS Mode Switch Low Reference	I	—

K71 Transmission Control Module (LWN) (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
26 - 27	—	—	—	Not Occupied	—	—
28	0.5	BK/BN	586	Transmission Oil Temperature Sensor Low Reference	I	—
29 - 32	—	—	—	Not Occupied	—	—
33	0.5	L-GN/GY	6387	Transmission High Side Driver 1 Signal Driver	I	—
34	—	—	—	Not Occupied	—	—
35	0.5	VT/BK	2139	Run/Crank Ignition 1 Voltage	I	—
36	—	—	—	Not Occupied	—	—
37	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
38	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
39 - 46	—	—	—	Not Occupied	—	—
47	0.5	GY/YE	4169	PRNDL S Signal	I	—
48	—	—	—	Not Occupied	—	—
49	0.75	GY/BN	6388	Transmission High Side Driver 2 Signal	I	—
50	—	—	—	Not Occupied	—	—
51	0.5	VT/YE	5985	Accessory Wakeup Serial Data	I	—
52	—	—	—	Not Occupied	—	—
53	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
54	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
55 - 58	—	—	—	Not Occupied	—	—
59	0.5	GY/WH	4168	PRNDL P Signal	I	—
60	0.5	WH/BK	5983	PRNDL C Signal	I	—
61	0.5	GY/BN	5982	PRNDL B Signal	I	—
62	0.5	VT/WH	5981	PRNDL A Signal	I	—
63	0.5	BN/WH	585	Transmission Oil Temperature Sensor Signal	I	—
64	—	—	—	Not Occupied	—	—
65	0.75	BK/WH	1551	Signal Ground	II	—
66	0.75	RD/L-GN	1840	Battery Positive Voltage	II	—

K73 Telematics Communication Interface Control Module X1



1471689

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15431362
Service Connector: 15306351
Description: 16-Way F 100A Micro-Pack Series (NA)

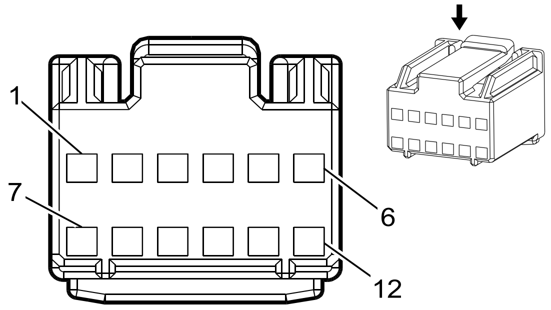
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575548	J-35616-16 (LT GN)	J-38125-559	15445905	Delphi 23	J	J
II	13575548	J-35616-16 (LT GN)	J-38125-559	15445905	Delphi 23	K	K

K73 Telematics Communication Interface Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-GN	5060	Low Speed GMLAN Serial Data	I	—
2	0.8	BN/WH	2517	Keypad Red LED Control	II	—
3	0.8	YE/BK	2516	Keypad Green LED Control	II	—
4 - 5	—	—	—	Not Occupied	—	—
6	0.8	L-GN/BK	2515	Keypad Control	II	—
7	0.8	BK/WH	351	Signal Ground	II	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
11	0.8	D-GN/WH	2514	Keypad Signal	II	—
12	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
13 - 14	—	—	—	Not Occupied	—	—
15	0.8	RD/WH	3240	Battery Positive Voltage	II	—
16	—	—	—	Not Occupied	—	—

K73 Telematics Communication Interface Control Module X2



1471691

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15431365
Service Connector: 88952886
Description: 12-Way F 100A Micro-Pack Series (NA)

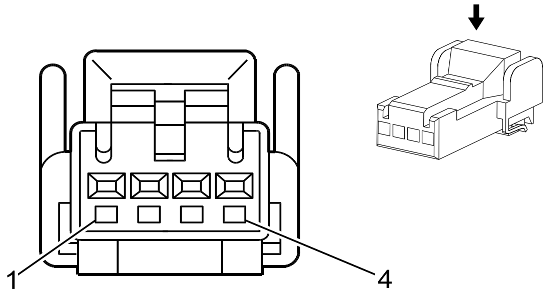
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575546	J-35616-16 (LT GN)	J-38125-559	15445905	Delphi 23	J	J
II	13575548	J-35616-16 (LT GN)	J-38125-559	15445905	Delphi 23	J	J
III	13575548	J-35616-16 (LT GN)	J-38125-559	15445905	Delphi 23	K	K

K73 Telematics Communication Interface Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35 0.8	D-BU/ D-BU/	658 658	Cellular Telephone Voice Signal Cellular Telephone Voice Signal	I III	UE1+UI8 UE1-UI8-UL5
2	0.35 0.8	L-BU/BK L-BU/BK	659 659	Cellular Telephone Voice Low Reference Cellular Telephone Voice Low Reference	I III	UE1+UI8 UE1-UI8-UL5
3	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	II	—
4	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	II	—
5	0.35	Bare	1792	Low Reference	I	—
6	0.35	PK	5149	Voice Recognition Audio Signal	I	—
7	—	—	—	Not Occupied	—	—
8	0.35 0.8	Bare Bare	1782 1792	Low Reference Low Reference	I III	UE1+UI8 UE1-UI8-UL5
9	0.8	GY	655	Cellular Telephone Microphone Signal	III	—
10	0.8	D-GN/	654	Cellular Telephone Microphone Low Reference	III	—
11	—	—	—	Not Occupied	—	—
12	0.35	PK/BK	5152	Voice Recognition Audio Low Reference	I	—

K77 Remote Control Door Lock Receiver



1673483

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15462684
Service Connector: 13585474
Description: 4-Way F IL-AG5 Series (GN)

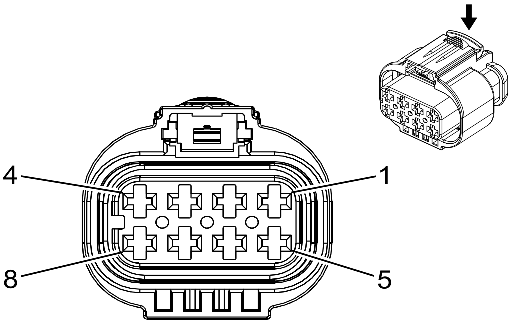
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K77 Remote Control Door Lock Receiver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/WH	5340	Battery Positive Voltage	I	—
2	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
3	—	—	—	Not Occupied	—	—
4	0.35	BK/WH	351	Signal Ground	I	—

K115 Reductant Control Module X1



3749581

Connector Part Information

Harness Type: Chassis
OEM Connector: 15530717
Service Connector: 19370092
Description: 8-Way F 2.8 Series, Sealed (BK)

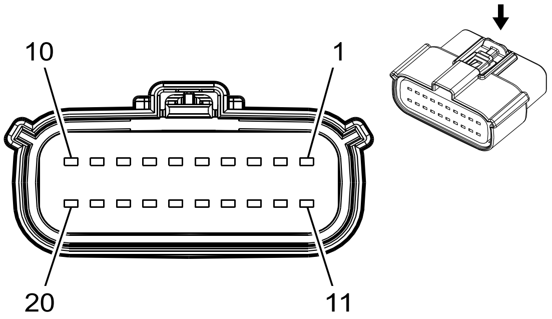
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K115 Reductant Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/L-GN	2440	Battery Positive Voltage	II	—
2	0.5	WH	7494	High Speed GMLAN Serial Data (-)3	I	—
3	0.5	D-BU/BK	7493	High Speed GMLAN Serial Data (+)3	I	—
4	1.5	BK	150	Ground	II	—
5	0.5	VT/YE	5985	Accessory Wakeup Serial Data	II	—
6	0.5	WH	7494	High Speed GMLAN Serial Data (-)3	I	—
7	0.5	D-BU/BK	7493	High Speed GMLAN Serial Data (+)3	I	—
8	2.5	D-BU/	3921	DEF Heater Supply 1	II	—

K115 Reductant Control Module X2



2871898

Connector Part Information

Harness Type: Emission Reductant Fluid Tank Reservoir
OEM Connector: 33472-2006
Service Connector: Service by Harness - See Part Catalog
Description: 20-Way F 150 MX Series, Sealed (BK)

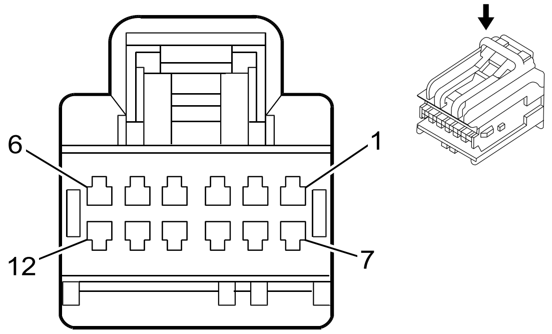
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

K115 Reductant Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	OG	3103	DEF Smart Pump Control	I	—
2	—	GN	3875	DEF Smart Pump Control Phase 2	I	—
3	—	BU	3876	DEF Smart Pump Control Phase 3	I	—
4	—	VT	4318	DEF Tank Heater Low Control	I	—
5	—	BK	3104	DEF Smart Pump Low Reference	I	—
6	—	OG	7285	Diesel Exhaust Fluid Liquid Quality Temperature Sensor Low Reference	I	—
7	—	YE	3922	DEF Heater Supply 2	I	—
8	—	—	—	Not Occupied	—	—
9	—	OG	3244	DEF Tank Temperature Sensor Signal	I	—
10	—	GN	3245	DEF Tank Temperature Sensor Low Reference	I	—
11	—	YE	3921	DEF Heater Supply 1	I	—
12	—	BU	3106	DEF Pressure Sensor 5V Reference	I	—
13	—	GY	3108	DEF Pressure Sensor Signal	I	—
14	—	YE	3107	DEF Pressure Sensor Low Reference	I	—
15	—	VT	6136	Control	I	—
16	—	BU	3028	DEF Tank Level Sensor Signal	I	—
17	—	VT	3029	DEF Tank Level Sensor Low Reference	I	—
18	—	GN	7487	Sensor Signal	I	—
19	—	YE	53	Diesel Exhaust Fluid Quality Signal	I	—
20	—	VT	4319	DEF Line Heater Low Control	I	—

K182 Parking Assist Control Module X1



1664569

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13784026
Service Connector: 13578574
Description: 12-Way F 0.64 Series (BK)

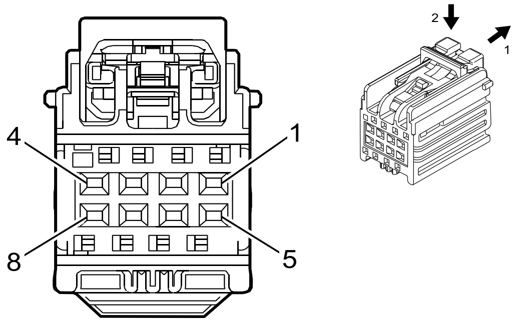
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575549	J-35616-16 (LT GN)	J-38125-559	15445905	Delphi 23	J	J
II	13575550	J-35616-16 (LT GN)	J-38125-559	15445905	Delphi 23	J	J

K182 Parking Assist Control Module X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	RD/WH	840	Battery Positive Voltage	II	—
2 - 5	—	—	—	Not Occupied	—	—
6	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
7	0.5	BK/WH	351	Signal Ground	II	—
8 - 12	—	—	—	Not Occupied	—	—

K182 Parking Assist Control Module X2



4280711

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33183559
Service Connector: 19355209
Description: 8-Way F YESC Kaizen Series (GY)

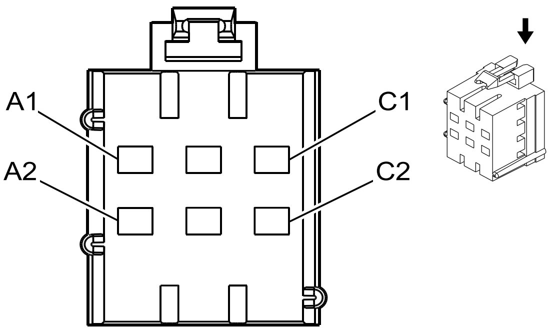
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

K182 Parking Assist Control Module X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/VT	2378	Right Rear Corner Object Sensor Signal	I	—
2	0.5	YE/WH	2377	Right Rear Middle Object Sensor Signal	I	—
3	0.5	YE/D-BU	2376	Left Rear Middle Object Sensor Signal	I	—
4	0.5	BN/WH	2374	Object Sensor Control	I	—
5	0.5	YE	2375	Left Rear Corner Object Sensor Signal	I	—
6 - 7	—	—	—	Not Occupied	—	—
8	0.5	BK/GY	2379	Object Sensor Low Reference	I	—

KR32B Blower Motor High Speed Relay - Auxiliary



309518

Connector Part Information

Harness Type: Auxiliary HVAC
OEM Connector: 12129715
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 280 Metri-Pack Flexlock Series (GY)

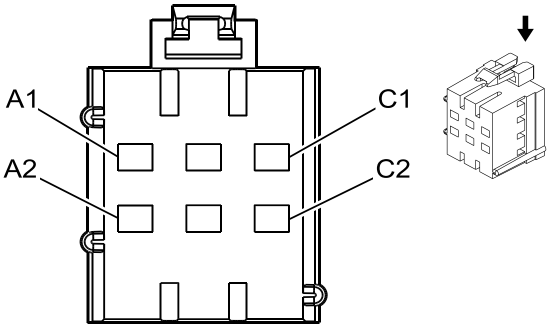
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

KR32B Blower Motor High Speed Relay - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.35	WH	1924	Auxiliary Blower Motor High Speed Control	I	—
A2	5	YE	1172	Auxiliary Blower Motor Control	I	—
B1 - B2	—	—	—	Not Occupied	—	—
C1	5	RD/WH	1740	Battery Positive Voltage	I	—
C2	0.35	BN	341	Run Ignition 3 Voltage	I	—

KR32C Blower Motor Low Speed Relay - Auxiliary



309518

Connector Part Information

Harness Type: Auxiliary HVAC
OEM Connector: 12129715
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 280 Metri-Pack Flexlock Series (GY)

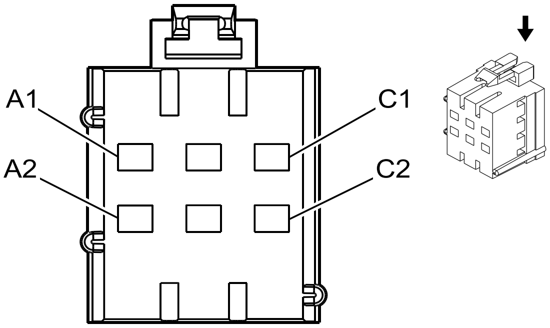
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

KR32C Blower Motor Low Speed Relay - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.35	D-BU/	1926	Auxiliary Blower Motor Low Speed Control	I	—
A2	3	YE	1176	Auxiliary Blower Motor Low Speed Control	I	—
B1 - B2	—	—	—	Not Occupied	—	—
C1	5	RD/WH	1740	Battery Positive Voltage	I	—
C2	0.35	BN	341	Run Ignition 3 Voltage	I	—

KR32D Blower Motor Medium Speed Relay - Auxiliary



309518

Connector Part Information

Harness Type: Auxiliary HVAC
OEM Connector: 12129715
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 280 Metri-Pack Flexlock Series (GY)

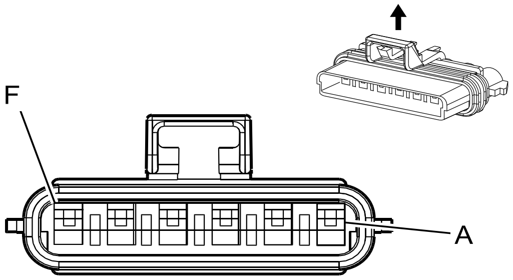
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

KR32D Blower Motor Medium Speed Relay - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A1	0.35	OG	1925	Auxiliary Blower Motor Medium Speed Control	I	—
A2	3	L-BU	1072	Auxiliary Blower Motor Medium Speed Control	I	—
B1 - B2	—	—	—	Not Occupied	—	—
C1	5	RD/WH	1740	Battery Positive Voltage	I	—
C2	0.35	BN	341	Run Ignition 3 Voltage	I	—

KR32E Blower Motor Relay



535914

Connector Part Information

Harness Type: Engine
OEM Connector: 12160746
Service Connector: 15306007
Description: 6-Way F 280 Metri-Pack Flexlock Series, Sealed (L-GY)

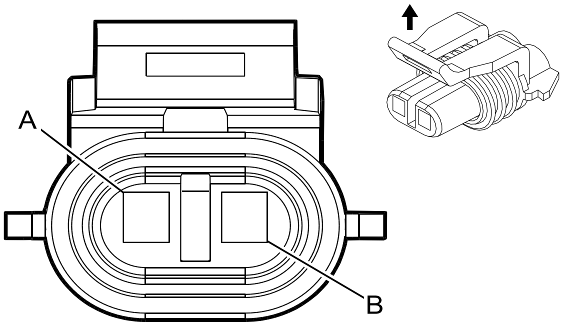
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

KR32E Blower Motor Relay

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	5	RD/BK	542	Battery Positive Voltage	I	—
B	0.8	OG	52	High Blower Motor Control	I	—
C	5	BK	1250	Ground	I	—
D	0.8	TN	63	Medium Blower Motor Control 1	I	—
E	0.8	YE	60	Low Blower Motor Control	I	—
F	2	L-BU	72	Medium 2 Blower Motor Control	I	—

KR81 Auxiliary Battery Relay 1 X1



635009

Connector Part Information

Harness Type: Engine
OEM Connector: 12052641
Service Connector: 13586114
Description: 2-Way F 150 Metri-Pack Series (BK)

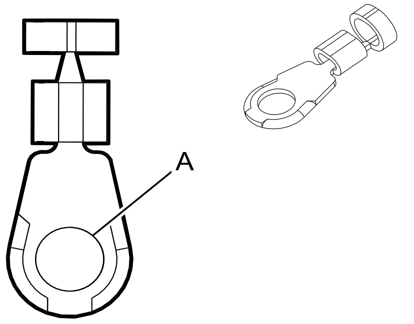
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

KR81 Auxiliary Battery Relay 1 X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	RD/WH	4892	Auxiliary Battery Relay Control	I	—
B	0.5	BK/WH	1551	Signal Ground	I	LV1
	0.8	BK/WH	1551	Signal Ground	I	LWN

KR81 Auxiliary Battery Relay 1 X2



3385519

Connector Part Information

Harness Type: Positive Battery Cable
OEM Connector: 12146365
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

KR81 Auxiliary Battery Relay 1 X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	13	RD	1	Unfused Battery Positive Voltage	I	—

KR81 Auxiliary Battery Relay 1 X3 (9L7)

—

Connector Part Information

Harness Type: Accessory
OEM Connector: 12103504
Service Connector: Service by Cable Assembly — See Part Catalog
Description: —

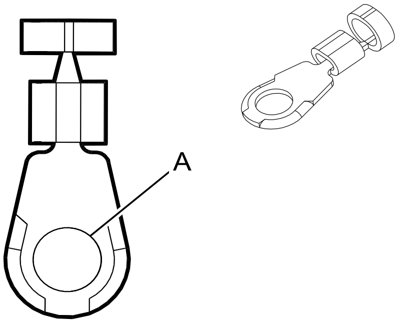
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

KR81 Auxiliary Battery Relay 1 X3 (9L7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	5	RD	1	Unfused Battery Positive Voltage	I	—
	5	RD/BK	102	Battery Positive Voltage	II	—

KR81 Auxiliary Battery Relay 1 X3 (TP2)



Connector Part Information

Harness Type: Positive Battery Cable
OEM Connector: 12146365
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

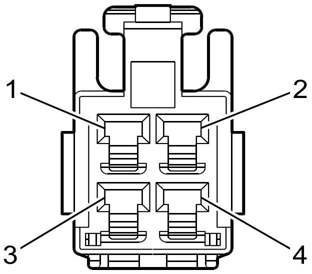
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

KR81 Auxiliary Battery Relay 1 X3 (TP2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	13	RD	1	Unfused Battery Positive Voltage	I	—

M2A Access Panel Unlatch Actuator - Left Front Side Front



4569115

Connector Part Information

Harness Type: Rear Body
OEM Connector: 7283-1040-90
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 090 II Series (BU)

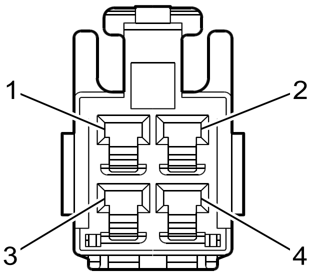
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-18 (BK)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M2A Access Panel Unlatch Actuator - Left Front Side Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	TN	294	Door Lock Actuator Unlock Control	I	—
4	20	BK	750	Ground	I	—

M2B Access Panel Unlatch Actuator - Left Front Side Rear



4569115

Connector Part Information

Harness Type: Rear Body
OEM Connector: 7283-1040-90
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 090 II Series (BU)

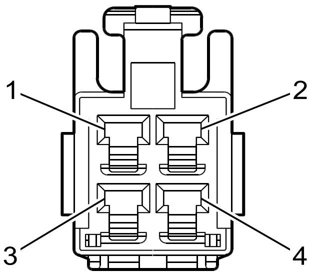
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-18 (BK)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M2B Access Panel Unlatch Actuator - Left Front Side Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	TN	294	Door Lock Actuator Unlock Control	I	—
4	20	BK	750	Ground	I	—

M2C Access Panel Unlatch Actuator - Left Rear Side Front



4569115

Connector Part Information

Harness Type: Rear Body
OEM Connector: 7283-1040-90
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 090 II Series (BU)

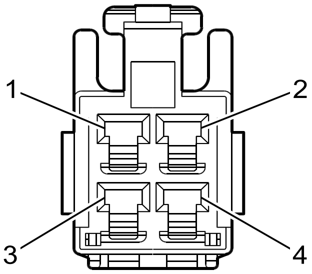
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-18 (BK)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M2C Access Panel Unlatch Actuator - Left Rear Side Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	PK	1092	Left Rear Door Lock Actuator Unlock Control	I	—
4	20	BK	750	Ground	I	—

M2D Access Panel Unlatch Actuator - Left Rear Side Rear



4569115

Connector Part Information

Harness Type: Rear Body
OEM Connector: 7283-1040-90
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 090 II Series (BU)

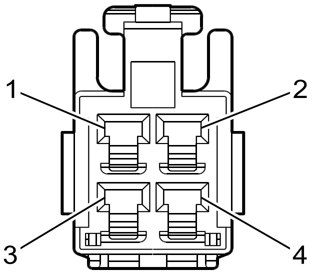
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-18 (BK)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M2D Access Panel Unlatch Actuator - Left Rear Side Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	PK	1092	Left Rear Door Lock Actuator Unlock Control	I	—
4	20	BK	750	Ground	I	—

M2E Access Panel Unlatch Actuator - Right Side Front



4569115

Connector Part Information

Harness Type: Rear Body
OEM Connector: 7283-1040-90
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 090 II Series (BU)

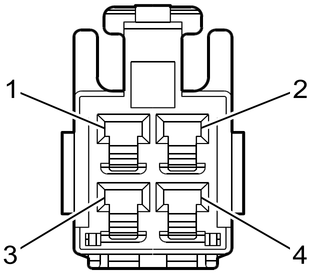
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-18 (BK)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M2E Access Panel Unlatch Actuator - Right Side Front

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	TN/BK	1095	Right Rear Door Lock Actuator Unlock Control	I	—
4	20	BK	750	Ground	I	—

M2F Access Panel Unlatch Actuator - Right Side Rear



4569115

Connector Part Information

Harness Type: Rear Body
OEM Connector: 7283-1040-90
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 090 II Series (BU)

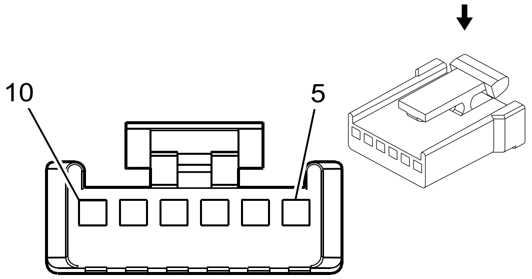
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-18 (BK)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M2F Access Panel Unlatch Actuator - Right Side Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	TN/BK	1095	Right Rear Door Lock Actuator Unlock Control	I	—
4	20	BK	750	Ground	I	—

M6 Air Temperature Door Actuator



281207

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12040953
Service Connector: 12102632
Description: 6-Way F 100 Micro-Pack Series (BK)

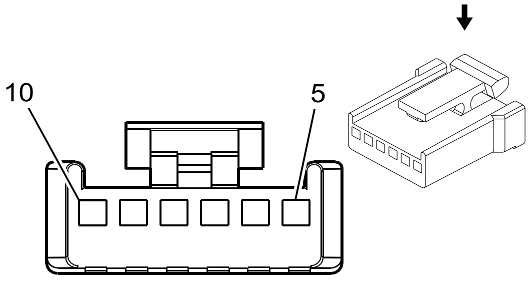
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-6 (BN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M6 Air Temperature Door Actuator

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
5 - 6	—	—	—	Not Occupied	—	—
7	1	BK	550	Ground	I	—
8	0.8	L-BU	733	Air Temperature Door Position Signal	I	—
9	—	—	—	Not Occupied	—	—
10	0.35	BN	341	Run Ignition 3 Voltage	I	—

M6B Air Temperature Door Actuator - Auxiliary



281207

Connector Part Information

Harness Type: Auxiliary HVAC
OEM Connector: 12040953
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 100 Micro-Pack Series (BK)

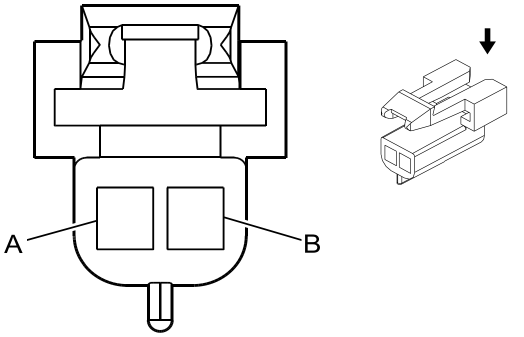
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-6 (BN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M6B Air Temperature Door Actuator - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
5 - 6	—	—	—	Not Occupied	—	—
7	0.35	BK	850	Ground	I	—
8	0.35	OG	2775	Rear Air Temperature Motor Control	I	—
9	—	—	—	Not Occupied	—	—
10	0.35	BN	341	Run Ignition 3 Voltage	I	—

M7 Transmission Shift Lock Control Solenoid Actuator (MYD)



280768

Connector Part Information

Harness Type: Steering Column
OEM Connector: 12052832
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

M7 Transmission Shift Lock Control Solenoid Actuator (MYD)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	TN/WH	816	Brake Transmission Shift Interlock Solenoid Control	I	—
B	—	BK	350	Ground	I	—

M8 Blower Motor

—

Connector Part Information

Harness Type: HVAC
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way

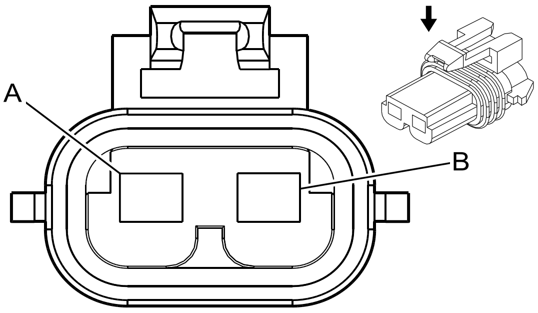
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

M8 Blower Motor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	BK	1250	Ground	I	—
B	—	RD	65	Blower Motor Control	I	—

M8B Blower Motor - Auxiliary



684799

Connector Part Information

Harness Type: Auxiliary HVAC
OEM Connector: 12077900
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

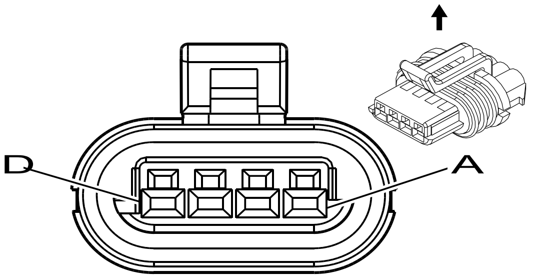
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M8B Blower Motor - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	5	BK	850	Ground	I	—
B	5	YE	1172	Auxiliary Blower Motor Control	I	—

M13 Door Latch Assembly - Rear Cargo X1



655858

Connector Part Information

Harness Type: Rear Cargo Door
OEM Connector: 15336846
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 GT Series, Sealed (BU)

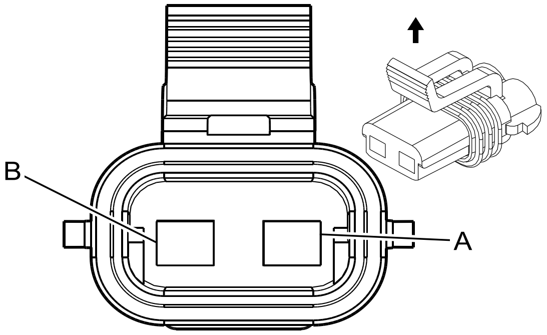
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M13 Door Latch Assembly - Rear Cargo X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK/WH	1051	Signal Ground	I	—
B	—	—	—	Not Occupied	—	—
C	0.35	PK/BK	1303	Lift Gate Ajar Switch Signal 1	I	—
D	0.35	L-GN	5926	Rear Access Open Switch Signal	I	—

M13 Door Latch Assembly - Rear Cargo X2



68721

Connector Part Information

Harness Type: Rear Cargo Door
OEM Connector: 15300027
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

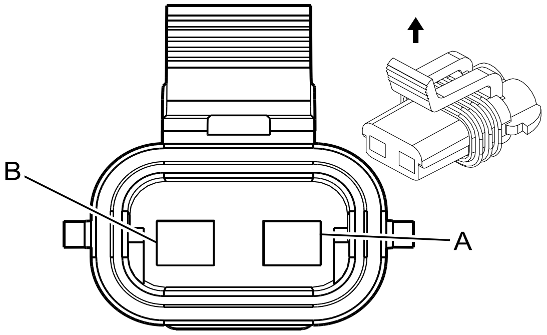
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M13 Door Latch Assembly - Rear Cargo X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	TN/BK	1095	Right Rear Door Lock Actuator Unlock Control	I	—
B	1	GY	295	Door Lock Actuator Lock Control	I	—

M14RR Door Lock Actuator - Right Rear (E24)



68721

Connector Part Information

Harness Type: Sliding Door
OEM Connector: 15300027
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

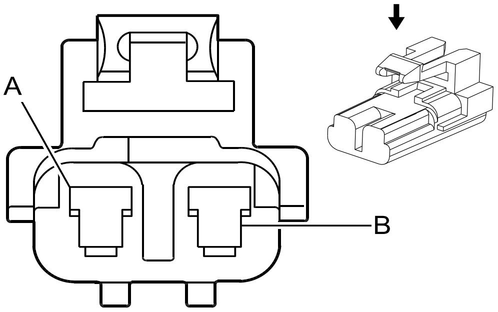
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M14RR Door Lock Actuator - Right Rear (E24)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	TN	294	Door Lock Actuator Unlock Control	I	—
B	0.8	GY	295	Door Lock Actuator Lock Control	I	—

M14RR Door Lock Actuator - Right Rear (YA2)



62488

Connector Part Information

Harness Type: Sliding Door
OEM Connector: 12084957
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 280 Metri-Pack Series (BK)

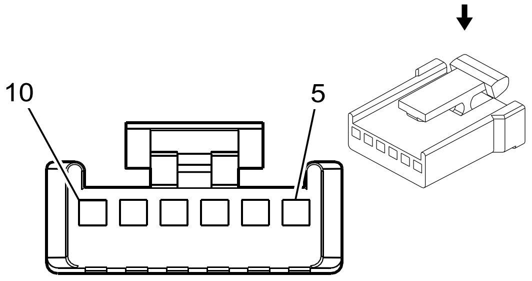
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M14RR Door Lock Actuator - Right Rear (YA2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	GY	295	Door Lock Actuator Lock Control	I	—
B	0.8	TN	294	Door Lock Actuator Unlock Control	I	—

M37B Mode Door Actuator - Auxiliary



281207

Connector Part Information

Harness Type: Auxiliary HVAC
OEM Connector: 12040953
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 100 Micro-Pack Series (BK)

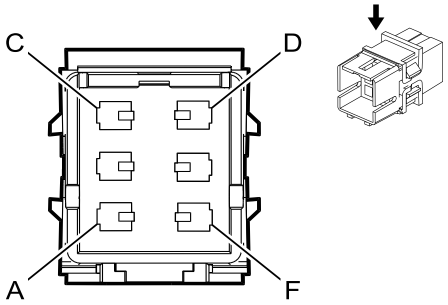
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-6 (BN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M37B Mode Door Actuator - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
5 - 6	—	—	—	Not Occupied	—	—
7	0.35	BK	850	Ground	I	—
8	0.35	GY	2599	Rear Mode Motor Signal	I	—
9	—	—	—	Not Occupied	—	—
10	0.35	BN	341	Run Ignition 3 Voltage	I	—

M49D Seat Motor Assembly - Driver (AG1)



2684011

Connector Part Information

Harness Type: Driver Seat Motor Jumper
OEM Connector: 12015345
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way M Weather Pack Series (BK)

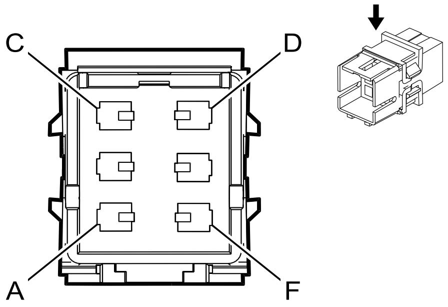
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

M49D Seat Motor Assembly - Driver (AG1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	YE	282	Driver Power Seat Rear Vertical Motor Up Control	I	—
B	—	L-BU	283	Driver Power Seat Rear Vertical Motor Down Control	I	—
C	—	TN	285	Driver Power Seat Horizontal Motor Forward Control	I	—
D	—	L-GN	284	Driver Power Seat Horizontal Motor Rearward Control	I	—
E	—	D-GN	286	Driver Power Seat Front Vertical Motor Up Control	I	—
F	—	D-BU	287	Driver Power Seat Front Vertical Motor Down Control	I	—

M49P Seat Motor Assembly - Passenger (AG2)



Connector Part Information

Harness Type: Passenger Seat Motor Jumper
OEM Connector: 12015345
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way M Weather Pack Series (BK)

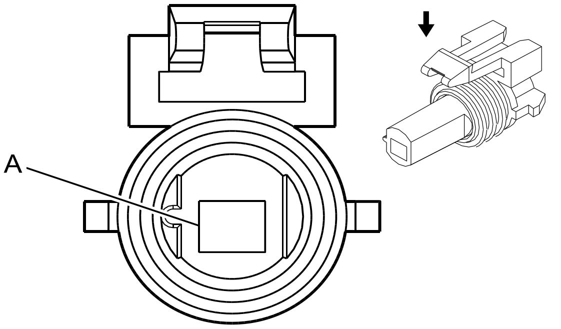
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

M49P Seat Motor Assembly - Passenger (AG2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	YE	288	Passenger Power Seat Rear Vertical Motor Up Control	I	—
B	—	L-BU	289	Passenger Power Seat Rear Vertical Motor Down Control	I	—
C	—	TN	296	Passenger Power Seat Horizontal Motor Forward Control	I	—
D	—	L-GN	290	Passenger Power Seat Horizontal Motor Rearward Control	I	—
E	—	D-GN	297	Passenger Power Seat Front Vertical Motor Up Control	I	—
F	—	D-BU	298	Passenger Power Seat Front Vertical Motor Down Control	I	—

M64 Starter Motor X2 (L96/LC8)



696940

Connector Part Information

Harness Type: Engine
OEM Connector: 15481001
Service Connector: 13584479
Description: 1-Way F 280 Metri-Pack Series, Sealed (BK)

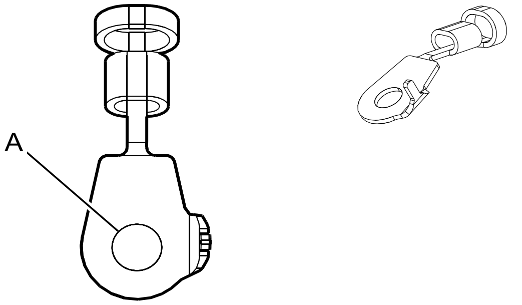
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M64 Starter Motor X2 (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	5	PU/	6	Starter Solenoid Crank Ignition Voltage	I	—

M64 Starter Motor X1 (L96/LC8+TP2)



Connector Part Information

Harness Type: Positive Battery Cable
OEM Connector: 13978405
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

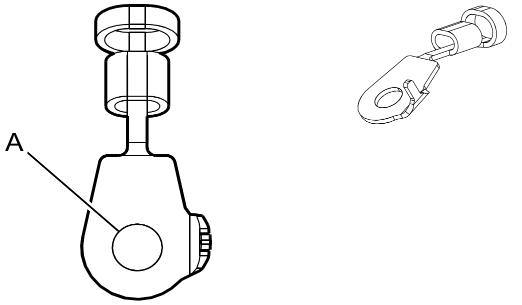
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

M64 Starter Motor X1 (L96/LC8+TP2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	13	RD	1	Unfused Battery Positive Voltage	I	L96
	19	RD	1	Unfused Battery Positive Voltage	I	LV1
	32	RD	1	Unfused Battery Positive Voltage	I	LWN

M64 Starter Motor X1 (L96/LC8-TP2)



Connector Part Information

Harness Type: Positive Battery Cable
OEM Connector: 12176602
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

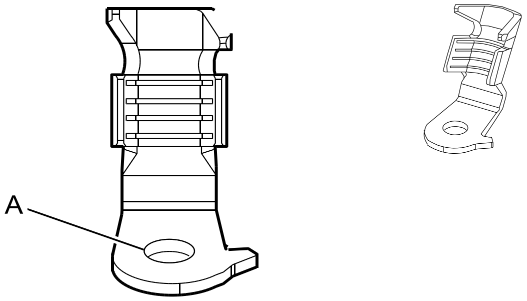
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

M64 Starter Motor X1 (L96/LC8-TP2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	32	RD	1	Unfused Battery Positive Voltage	I	—

M64 Starter Motor X1 (LV1)



4937583

Connector Part Information

Harness Type: Positive Battery Cable
OEM Connector: 35116268
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

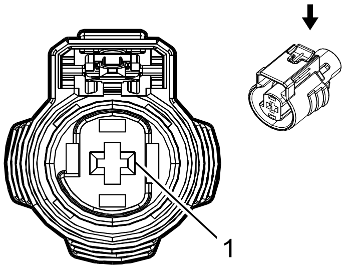
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

M64 Starter Motor X1 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	13	RD	1	Unfused Battery Positive Voltage	I	—
	32	RD	1	Unfused Battery Positive Voltage		—

M64 Starter Motor X2 (LV1)



2717134

Connector Part Information

Harness Type: Engine
OEM Connector: 15526411
Service Connector: 19300471
Description: 1-Way F 2.8 MCP Series, Sealed (BK)

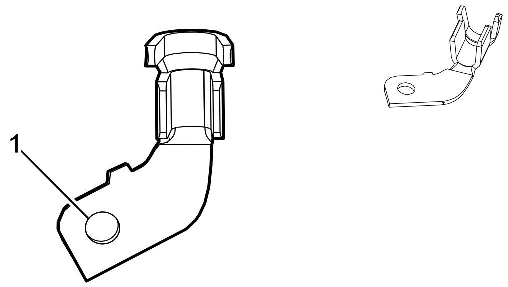
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M64 Starter Motor X2 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	4	YE	6	Starter Solenoid Crank Ignition Voltage	I	—

M64 Starter Motor X1 (LWN)



4892115

Connector Part Information

Harness Type: Positive Battery Cable
OEM Connector: 33253169
Service Connector: Service by Cable Assembly — See Part Catalog
Description: 1-Way Ring Terminal

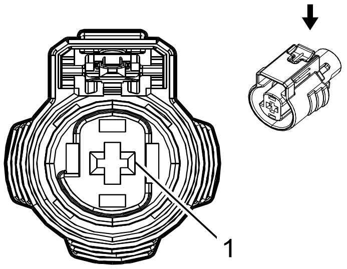
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	No Tool Required	No Tool Required	Not Required	Not Required	Not Required	Not Required

M64 Starter Motor X1 (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	32	RD	1	Unfused Battery Positive Voltage	I	—

M64 Starter Motor X2 (LWN)



2717134

Connector Part Information

Harness Type: Engine
OEM Connector: 15526411
Service Connector: 19300471
Description: 1-Way F 2.8 MCP Series, Sealed (BK)

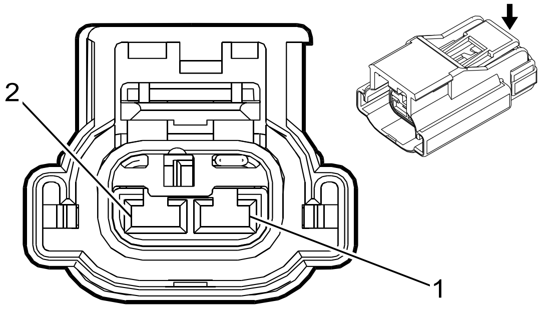
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M64 Starter Motor X2 (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	5	VT	6	Starter Solenoid Crank Ignition Voltage	I	—

M74D Window Motor - Driver



3372003

Connector Part Information

Harness Type: Driver Door
OEM Connector: 13896059
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 APEX Series, Sealed (BK)

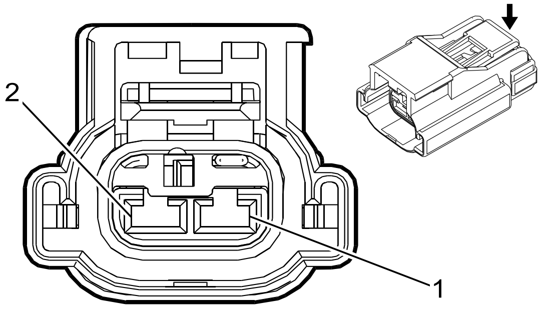
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M74D Window Motor - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	3	D-BU	164	Power Window Motor Left Front Up Control	I	—
2	3	BN	165	Power Window Motor Left Front Down Control	I	—

M74P Window Motor - Passenger



3372003

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 13896059
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 2.8 APEX Series, Sealed (BK)

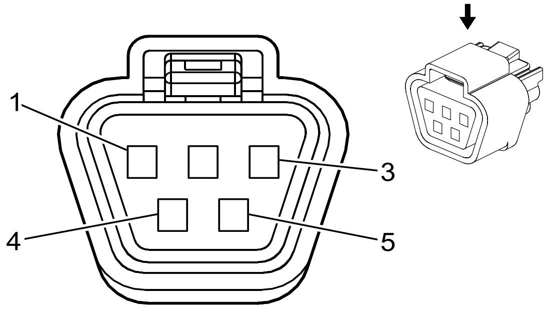
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M74P Window Motor - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	3	D-BU/	666	Power Window Motor Right Front Up Control	I	—
2	3	BN	667	Power Window Motor Right Front Down Control	I	—

M75 Windshield Wiper Motor



1715213

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15316488
Service Connector: 13587179
Description: 5-Way F 090 Series, Sealed (BK)

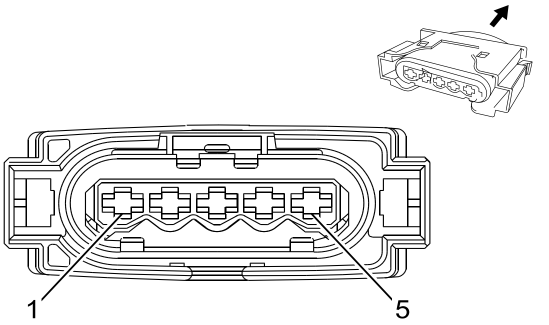
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-18 (BK)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M75 Windshield Wiper Motor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	2	D-GN	95	Windshield Wiper Motor Low Speed Control	II	—
2	0.35	BK/WH	351	Signal Ground	I	—
3	0.35	YE	196	Windshield Wiper Motor Park Switch Signal	I	—
4	2	PU/	92	Windshield Wiper Motor High Speed Control	II	—
5	2	BK	1250	Ground	II	—

M103 Turbocharger Vane Position Actuator



Connector Part Information

Harness Type: Engine
OEM Connector: 10890285
Service Connector: 19368141
Description: 5-Way F 2.8 SLK Series (BK)

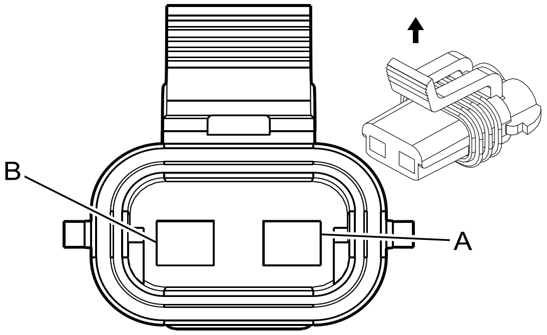
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

M103 Turbocharger Vane Position Actuator

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	GY/D-BU	5930	Variable Nozzle Turbo Solenoid High Signal	I	—
2	0.5	WH/BK	5931	Variable Nozzle Turbo Solenoid Low Signal	I	—
3	0.5	BK/BN	5929	Variable Nozzle Turbo Position Sensor Low Reference	I	—
4	0.5	VT/YE	5947	Variable Nozzle Turbo Position Sensor Signal	I	—
5	0.5	GY/RD	5928	Variable Nozzle Turbo Position Sensor 5V Reference	I	—

P3 Backup Alarm



68721

Connector Part Information

Harness Type: Chassis
OEM Connector: 15300027
Service Connector: 12101855
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

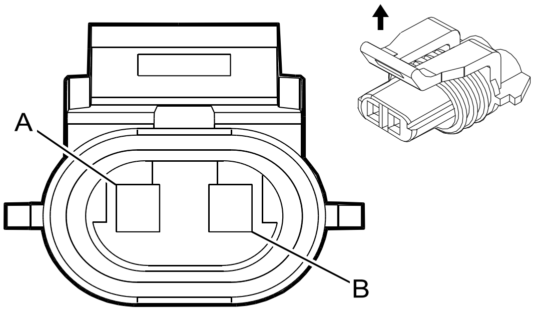
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P3 Backup Alarm

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	L-GN	1624	Trailer Backup Lamp Control	I	—
B	1	BK	150	Ground	I	—

P13 Horn Assembly



537107

Connector Part Information

Harness Type: Engine
OEM Connector: 12052644
Service Connector: 19368034
Description: 2-Way F 150 Metri-Pack Series, Sealed (GY)

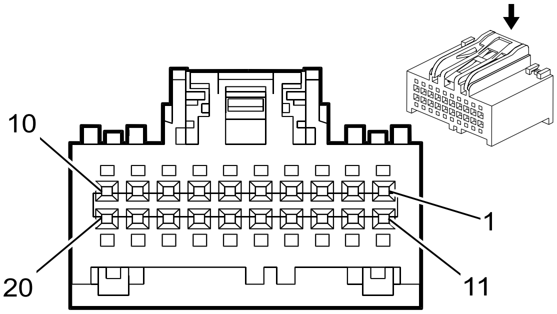
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P13 Horn Assembly

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BK	1250	Ground	I	—
B	0.8	D-GN	29	Horn Control	I	—

P16 Instrument Cluster



1715223

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33125545
Service Connector: 13593931
Description: 20-Way F 64 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575742	J-35616-64B (LT BU)	J-38125-215A	SAIT-A03T-M064	Yazaki 14	P	P
II	13575867	J-35616-64B (LT BU)	J-38125-215A	SAIT-A03T-M064	Yazaki 14	P	P

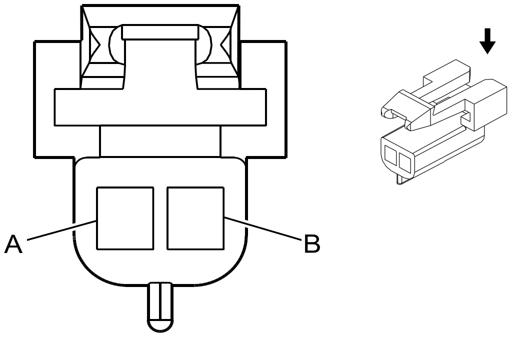
P16 Instrument Cluster

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	D-GN	5060	Low Speed GMLAN Serial Data	II	—
2	—	—	—	Not Occupied	—	—
3	0.5	L-GN/	1478	Coolant Level Switch Signal	I	—
4	0.5	BN/WH	419	Check Engine Indicator Control	I	—
5	—	—	—	Not Occupied	—	—
6	0.35	GY/YE	3885	Forward Collision Alert LED Control	II	—
7	0.35	BK/WH	351	Signal Ground	II	—
8	0.35	WH/GN	3535	Reflected LED Display Dimming Control	II	—
9	0.5	L-GN/BN	507	Wait To Start Indicator Control	I	—
10	0.5	BU/GY	636	Outside Ambient Air Temperature Sensor Signal	I	—
11	0.5	BK/D-BU	61	Outside Ambient Temperature Sensor Low Reference	I	—
12	0.35	D-BU	2307	Passenger Air Bag On Indicator Control	II	—
13	0.35	D-GN	2308	Passenger Air Bag Off Indicator Control	II	—
14	0.5	TN/WH	33	Brake Warning Indicator Control	I	—
15	0.75	L-GN/GY	333	Brake Fluid Level Sensor Signal	I	—
16	0.35	PK	893	Driver Information Center Select Menu Switch Signal	II	—
17	0.35	D-GN/WH	1358	Driver Information Center Switch Signal	II	—
18	0.35	BN	897	Driver Information Center Switch Low Reference	II	—

P16 Instrument Cluster (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
19	0.35	PK	1639	Run/Crank Ignition 1 Voltage	II	—
20	0.35	RD/WH	2840	Battery Positive Voltage	II	—

P19AG Speaker - Left Front Door



280768

Connector Part Information

Harness Type: Driver Door
OEM Connector: 12052832
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series (BK)

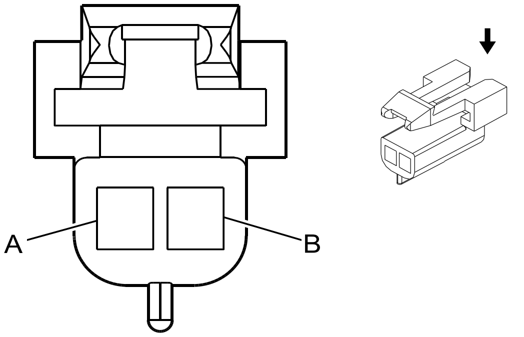
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P19AG Speaker - Left Front Door

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	L-BU	1957	Left Front Midrange Speaker (-) Low Reference	I	—
B	0.8	D-BU/	1857	Left Front Midrange Speaker Control (+)	I	—

P19AH Speaker - Right Front Door



280768

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 12052832
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series (BK)

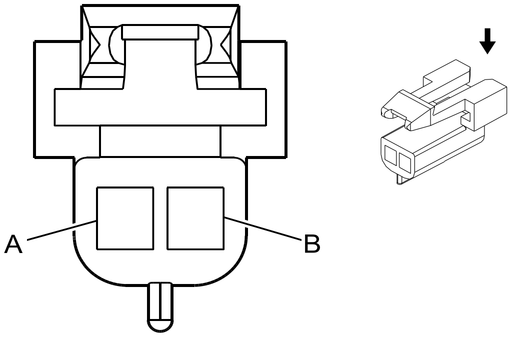
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P19AH Speaker - Right Front Door

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	D-GN	1953	Right Front Midrange Speaker (-) Low Reference	I	—
B	0.8	OG	1853	Right Front Midrange Speaker Control (+)	I	—

P19F Speaker - Left Rear Cargo Door



280768

Connector Part Information

Harness Type: Left Rear Cargo Door
OEM Connector: 12052832
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series (BK)

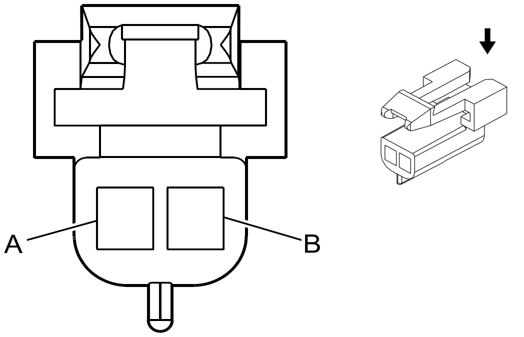
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P19F Speaker - Left Rear Cargo Door

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	WH	1959	Left Rear Midrange Speaker (-) Low Reference	I	—
B	1	TN	1859	Left Rear Midrange Speaker Control (+)	I	—

P19LR Speaker - Left Rear Roof



280768

Connector Part Information

Harness Type: Rear Speaker
OEM Connector: 12052832
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series (BK)

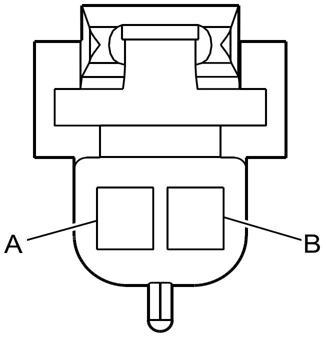
Terminal Part Information

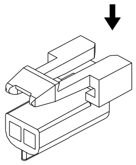
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P19LR Speaker - Left Rear Roof

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	WH	1959	Left Rear Midrange Speaker (-) Low Reference	I	—
B	1	TN	1859	Left Rear Midrange Speaker Control (+)	I	—

P19RR Speaker - Right Rear Roof





280768

Connector Part Information

Harness Type: Rear Speaker
OEM Connector: 12052832
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series (BK)

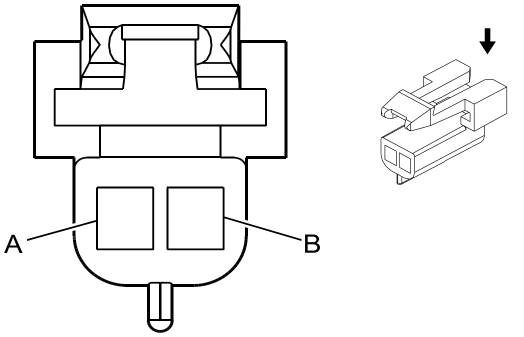
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P19RR Speaker - Right Rear Roof

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	OG	1955	Right Rear Midrange Speaker (-) Low Reference	I	—
B	1	TN	1855	Right Rear Midrange Speaker Control (+)	I	—

P19T Speaker - Right Rear Cargo Door



280768

Connector Part Information

Harness Type: Rear Cargo Door
OEM Connector: 12052832
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series (BK)

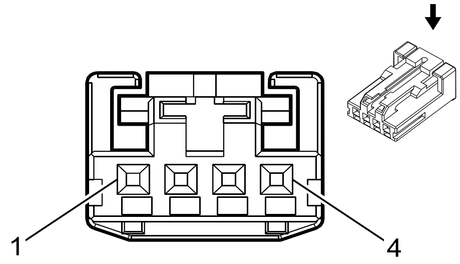
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P19T Speaker - Right Rear Cargo Door

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	OG	1955	Right Rear Midrange Speaker (-) Low Reference	I	—
B	1	TN	1855	Right Rear Midrange Speaker Control (+)	I	—

P43 Collision Alert Indicators



2717162

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13969166
Service Connector: 13587297
Description: 4-Way F 0.64 Micro-Quadlock Series (BK)

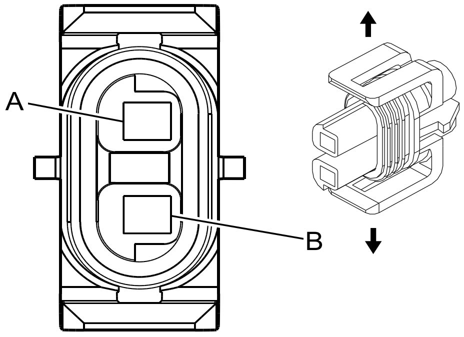
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

P43 Collision Alert Indicators

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/BK	1639	Run/Crank Ignition 1 Voltage	I	—
2	0.35	GY/YE	3885	Forward Collision Alert LED Control	I	—
3	0.35	WH/L-GN	3535	Reflected LED Display Dimming Control	I	—
4	0.5	BK/WH	2151	Signal Ground	I	—

Q2 A/C Compressor Clutch (L96/LC8)



684852

Connector Part Information

Harness Type: Engine
OEM Connector: 12162017
Service Connector: 12101937
Description: 2-Way F 150 Metri-Pack Series, Sealed (GY)

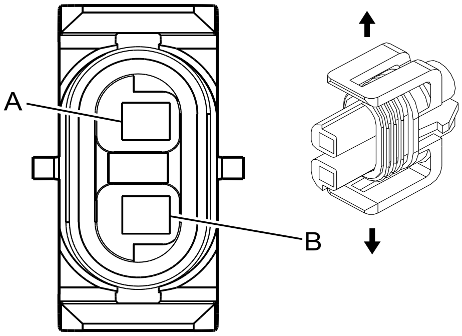
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q2 A/C Compressor Clutch (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BK	1250	Ground	I	—
B	0.5	D-GN	59	A/C Compressor Clutch Control	I	—

Q2 A/C Compressor Clutch (LV1)



684852

Connector Part Information

Harness Type: Engine
OEM Connector: 12162017
Service Connector: 12101937
Description: 2-Way F 150 Metri-Pack Series, Sealed (GY)

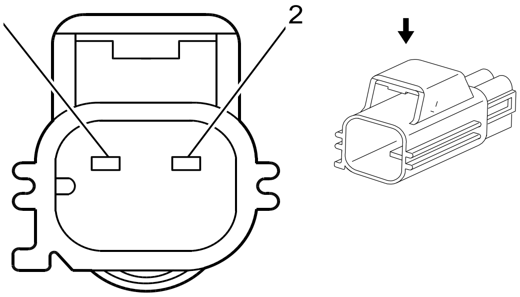
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q2 A/C Compressor Clutch (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BK	1250	Ground	I	—
B	0.5	D-GN	59	A/C Compressor Clutch Control	I	—

Q2 A/C Compressor Clutch (LWN)



897985

Connector Part Information

Harness Type: Engine
OEM Connector: 15342400
Service Connector: 88953303
Description: 2-Way M YESC Weather Pack Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q2 A/C Compressor Clutch (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/L-GN	59	A/C Compressor Clutch Control	I	—
2	0.8	BK	1250	Ground	I	—

Q6 Camshaft Position Actuator Solenoid Valve (L96/LC8)

—

Connector Part Information

Harness Type: Camshaft Position Sensor Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: F

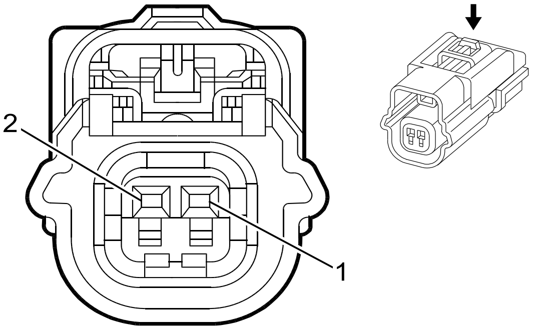
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q6 Camshaft Position Actuator Solenoid Valve (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	TN	2199	Camshaft Phaser Solenoid Low Reference	I	—
2	—	PU/	5284	Camshaft Phaser Intake Solenoid 1	I	—

Q6 Camshaft Position Actuator Solenoid Valve



1664592

Connector Part Information

Harness Type: Camshaft Position Sensor Jumper
OEM Connector: 13528494
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 Kaizen Series, Sealed (BK)

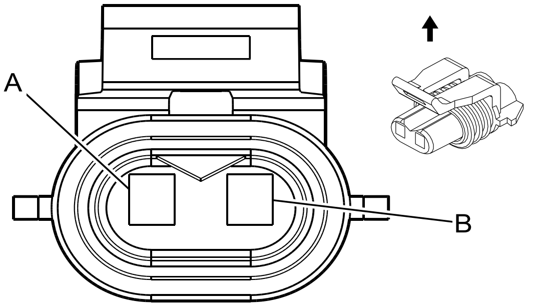
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q6 Camshaft Position Actuator Solenoid Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BK/BN	6753	Cam Phaser W Low Reference	I	—
2	0.5	VT/BN	5284	Camshaft Phaser Intake Solenoid 1	I	—

Q12 Evaporative Emission Purge Solenoid Valve (L96/LC8)



684829

Connector Part Information

Harness Type: Engine
OEM Connector: 12124037
Service Connector: 13585860
Description: 2-Way F 150 Metri-Pack Series, Sealed (BK)

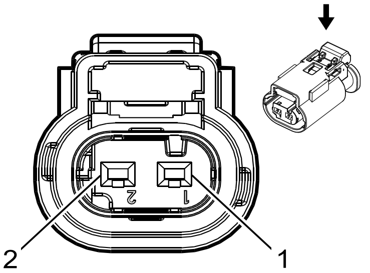
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q12 Evaporative Emission Purge Solenoid Valve (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	PK	1939	Run/Crank Ignition 1 Voltage	I	—
B	0.5	D-GN/WH	428	EVAP Canister Purge Solenoid Control	I	—

Q12 Evaporative Emission Purge Solenoid Valve (LV1)



2717066

Connector Part Information

Harness Type: Engine
OEM Connector: 13735326
Service Connector: 13587326
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

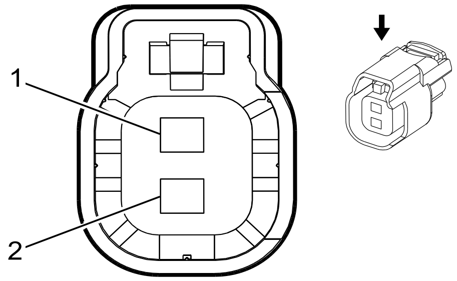
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q12 Evaporative Emission Purge Solenoid Valve (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	VT/WH	1939	Run/Crank Ignition 1 Voltage	I	—
2	0.5	L-GN/D-BU	428	EVAP Canister Purge Solenoid Control	I	—

Q13 Evaporative Emission Vent Solenoid Valve



2422378

Connector Part Information

Harness Type: Chassis
OEM Connector: 13771883
Service Connector: 13579002
Description: 2-Way F 1.5 Series, Sealed (BK)

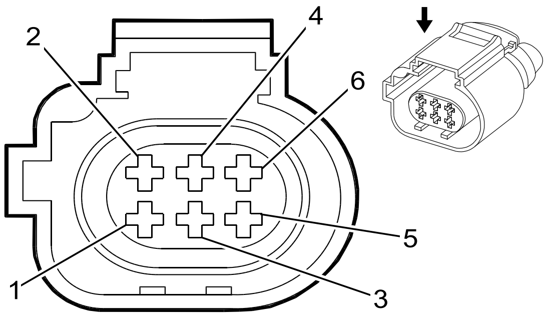
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q13 Evaporative Emission Vent Solenoid Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH	1310	EVAP Canister Vent Solenoid Control	I	—
2	0.5	RD/L-GN	40	Battery Positive Voltage	I	—

Q14 Exhaust Gas Recirculation Valve



2216905

Connector Part Information

Harness Type: Engine
OEM Connector: 10888948
Service Connector: 19368732
Description: 6-Way F 1.6 Micro-Timer Series, Sealed (BN)

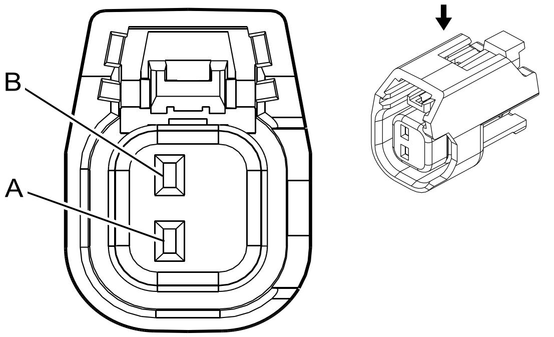
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q14 Exhaust Gas Recirculation Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	WH/VT	5764	Exhaust Gas Recirculation Valve Motor High Signal	I	—
2	0.5	BN/WH	5763	Exhaust Gas Recirculation Valve Sensor Signal	I	—
3	—	—	—	Not Occupied	—	—
4	0.5	BK/BN	2753	Exhaust Gas Recirculation Sensor Low Reference	I	—
5	0.5	VT/BK	5746	Exhaust Gas Recirculation Valve Motor Low Signal	I	—
6	0.5	D-BU/RD	5047	Exhaust Gas Recirculation 5V Reference 1	I	—

Q17A Fuel Injector 1 (L96/LC8)



Connector Part Information

Harness Type: Engine
OEM Connector: 15419715
Service Connector: 19367557
Description: 2-Way F 150 GT Series, Sealed (GY)

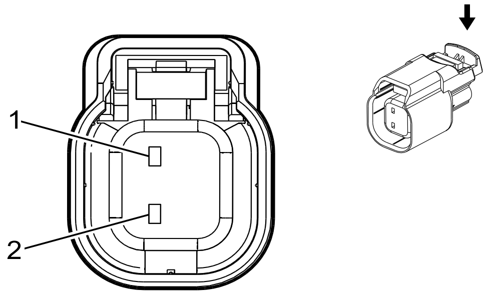
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17A Fuel Injector 1 (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	PK	1039	Run/Crank Ignition 1 Voltage	I	—
B	0.5	TN	1744	Fuel Injector Control 1	I	—

Q17A Fuel Injector 1 (LV1)



2792100

Connector Part Information

Harness Type: Fuel Injector Jumper
OEM Connector: 13581410
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 Series, Sealed (BK)

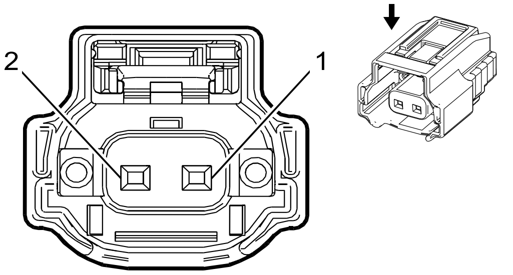
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17A Fuel Injector 1 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	—	I	—
2	—	—	—	—	I	—

Q17A Fuel Injector 1 (LWN)



Connector Part Information

Harness Type: Engine
OEM Connector: 13988576
Service Connector: 13407097
Description: 2-Way F 090 DL Series, Sealed (BK)

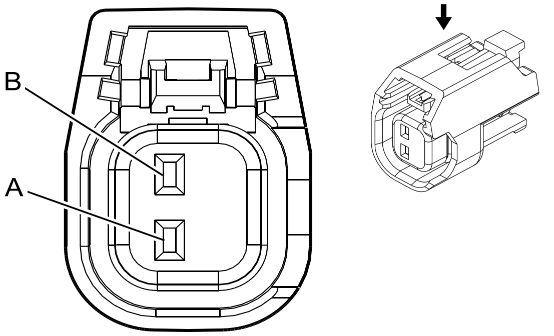
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17A Fuel Injector 1 (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	BN/WH	4901	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1	I	—
2	1.5	BN	4801	Direct Fuel Injector (DFI) High Voltage Control Cylinder 1	I	—

Q17B Fuel Injector 2 (L96/LC8)



1527729

Connector Part Information

Harness Type: Engine
OEM Connector: 15419715
Service Connector: 19367557
Description: 2-Way F 150 GT Series, Sealed (GY)

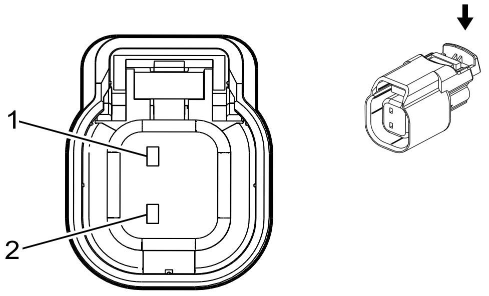
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17B Fuel Injector 2 (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	PK	1239	Run/Crank Ignition 1 Voltage	I	—
B	0.5	L-GN/BK	1745	Fuel Injector Control 2	I	—

Q17B Fuel Injector 2 (LV1)



2792100

Connector Part Information

Harness Type: Fuel Injector Jumper
OEM Connector: 13581410
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 Series, Sealed (BK)

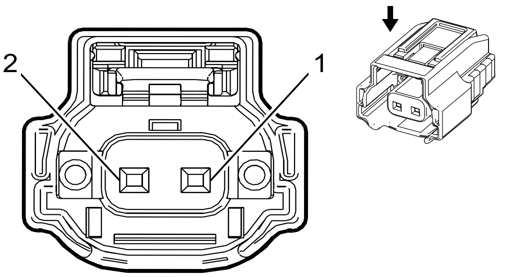
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17B Fuel Injector 2 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	—	I	—
2	—	—	—	—	I	—

Q17B Fuel Injector 2 (LWN)



2498869

Connector Part Information

Harness Type: Engine
OEM Connector: 13988576
Service Connector: 13407097
Description: 2-Way F 090 DL Series, Sealed (BK)

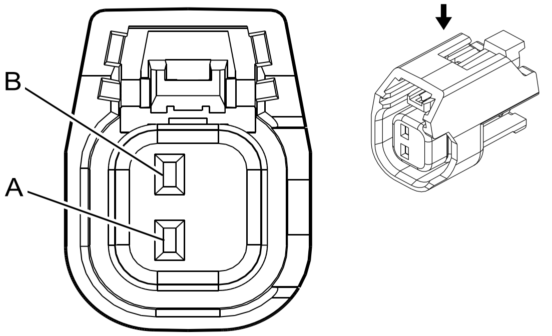
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17B Fuel Injector 2 (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	D-BU/GY	4902	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 2	I	—
2	1.5	D-BU/	4802	Direct Fuel Injector (DFI) High Voltage Control Cylinder 2	I	—

Q17C Fuel Injector 3 (L96/LC8)



1527729

Connector Part Information

Harness Type: Engine
OEM Connector: 15419715
Service Connector: 19367557
Description: 2-Way F 150 GT Series, Sealed (GY)

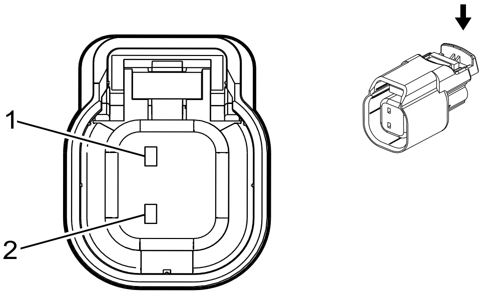
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17C Fuel Injector 3 (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	PK	1039	Run/Crank Ignition 1 Voltage	I	—
B	0.5	PK/BK	1746	Fuel Injector Control 3	I	—

Q17C Fuel Injector 3 (LV1)



2792100

Connector Part Information

Harness Type: Fuel Injector Jumper
OEM Connector: 13581410
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 Series, Sealed (BK)

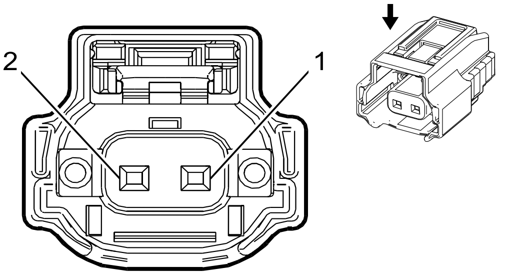
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17C Fuel Injector 3 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	—	I	—
2	—	—	—	—	I	—

Q17C Fuel Injector 3 (LWN)



2498869

Connector Part Information

Harness Type: Engine
OEM Connector: 13988576
Service Connector: 13407097
Description: 2-Way F 090 DL Series, Sealed (BK)

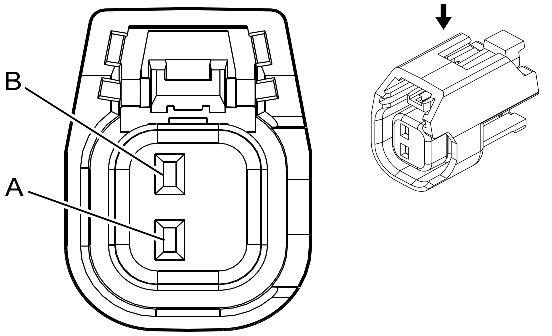
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17C Fuel Injector 3 (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	L-GN/GY	4903	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3	I	—
2	1.5	L-GN	4803	Direct Fuel Injector (DFI) High Voltage Control Cylinder 3	I	—

Q17D Fuel Injector 4 (L96/LC8)



Connector Part Information

Harness Type: Engine
OEM Connector: 15419715
Service Connector: 19367557
Description: 2-Way F 150 GT Series, Sealed (GY)

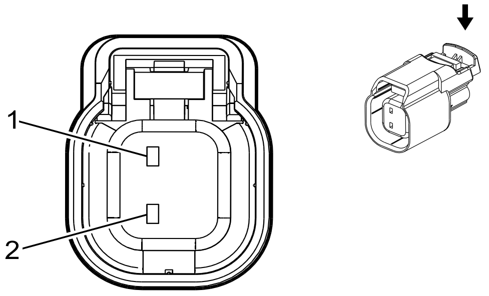
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17D Fuel Injector 4 (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	PK	1239	Run/Crank Ignition 1 Voltage	I	—
B	0.5	L-BU/BK	844	Fuel Injector Control 4	I	—

Q17D Fuel Injector 4 (LV1)



2792100

Connector Part Information

Harness Type: Fuel Injector Jumper
OEM Connector: 13581410
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 Series, Sealed (BK)

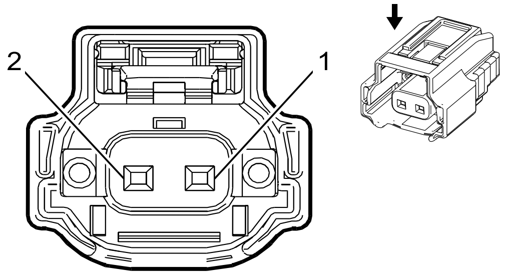
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17D Fuel Injector 4 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	D-BU/WH	4904	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4	I	—
2	—	D-BU/	4804	Direct Fuel Injector (DFI) High Voltage Control Cylinder 4	I	—

Q17D Fuel Injector 4 (LWN)



2498869

Connector Part Information

Harness Type: Engine
OEM Connector: 13988576
Service Connector: 13407097
Description: 2-Way F 090 DL Series, Sealed (BK)

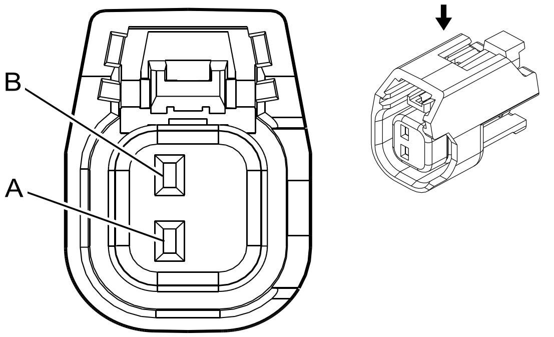
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17D Fuel Injector 4 (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	1.5	D-BU/WH	4904	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4	I	—
2	1.5	GY/D-BU	4804	Direct Fuel Injector (DFI) High Voltage Control Cylinder 4	I	—

Q17E Fuel Injector 5 (L96/LC8)



1527729

Connector Part Information

Harness Type: Engine
OEM Connector: 15419715
Service Connector: 19367557
Description: 2-Way F 150 GT Series, Sealed (GY)

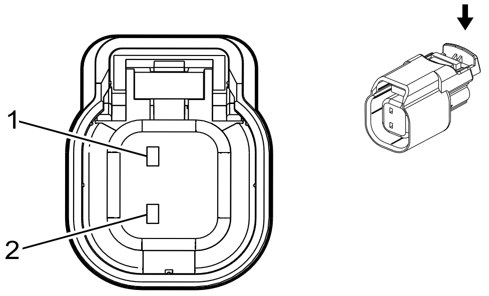
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17E Fuel Injector 5 (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	PK	1039	Run/Crank Ignition 1 Voltage	I	—
B	0.5	TN/WH	845	Fuel Injector Control 5	I	—

Q17E Fuel Injector 5 (LV1)



2792100

Connector Part Information

Harness Type: Fuel Injector Jumper
OEM Connector: 13581410
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 Series, Sealed (BK)

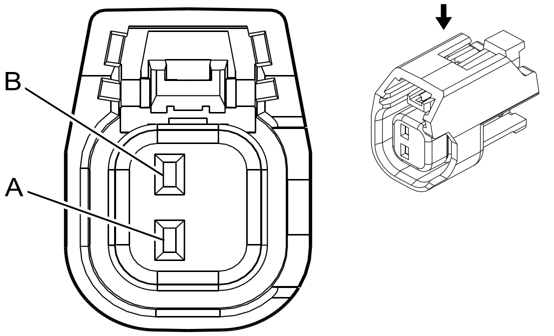
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17E Fuel Injector 5 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	L-GN/WH	4905	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 5	I	—
2	—	WH/L-GN	4805	Direct Fuel Injector (DFI) High Voltage Control Cylinder 5	I	—

Q17F Fuel Injector 6 (L96/LC8)



1527729

Connector Part Information

Harness Type: Engine
OEM Connector: 15419715
Service Connector: 19367557
Description: 2-Way F 150 GT Series, Sealed (GY)

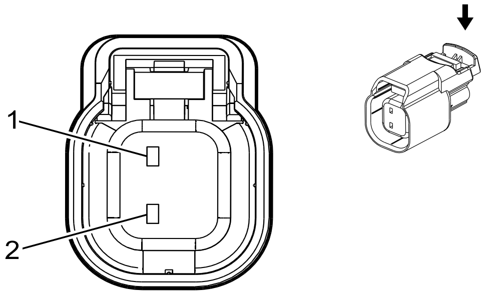
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17F Fuel Injector 6 (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	PK	1239	Run/Crank Ignition 1 Voltage	I	—
B	0.5	YE/BK	846	Fuel Injector Control 6	I	—

Q17F Fuel Injector 6 (LV1)



2792100

Connector Part Information

Harness Type: Fuel Injector Jumper
OEM Connector: 13581410
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.5 Series, Sealed (BK)

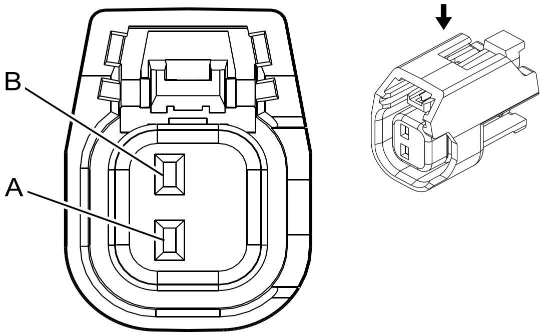
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17F Fuel Injector 6 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	VT/GY	4906	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 6	I	—
2	—	VT/L-GN	4806	Direct Fuel Injector (DFI) High Voltage Control Cylinder 6	I	—

Q17G Fuel Injector 7



1527729

Connector Part Information

Harness Type: Engine
OEM Connector: 15419715
Service Connector: 19367557
Description: 2-Way F 150 GT Series, Sealed (GY)

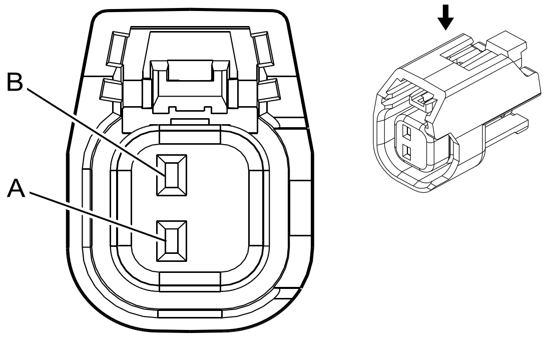
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17G Fuel Injector 7

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	PK	1039	Run/Crank Ignition 1 Voltage	I	—
B	0.5	OG/BK	877	Fuel Injector Control 7	I	—

Q17H Fuel Injector 8



Connector Part Information

Harness Type: Engine
OEM Connector: 15419715
Service Connector: 19367557
Description: 2-Way F 150 GT Series, Sealed (GY)

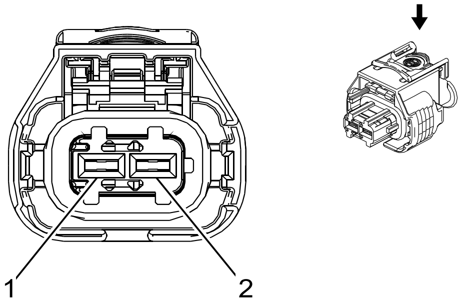
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q17H Fuel Injector 8

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	PK	1239	Run/Crank Ignition 1 Voltage	I	—
B	0.5	D-BU/WH	878	Fuel Injector Control 8	I	—

Q18A Fuel Pressure Regulator 1



2577394

Connector Part Information

Harness Type: Engine
OEM Connector: 13930085
Service Connector: 13384371
Description: 2-Way F 2.8 Series, Sealed (BK)

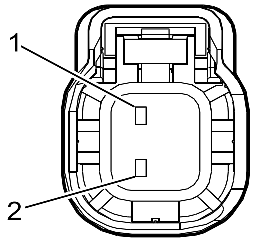
Terminal Part Information

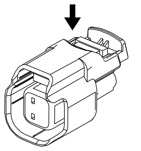
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q18A Fuel Pressure Regulator 1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	2928	Fuel Metering Valve High Control	I	—
2	0.5	BN/BK	2929	Fuel Metering Valve Low Control	I	—

Q18B Fuel Pressure Regulator 2





3028817

Connector Part Information

Harness Type: Engine
OEM Connector: 13946568
Service Connector: 19352404
Description: 2-Way F 1.5 Series, Sealed (BK)

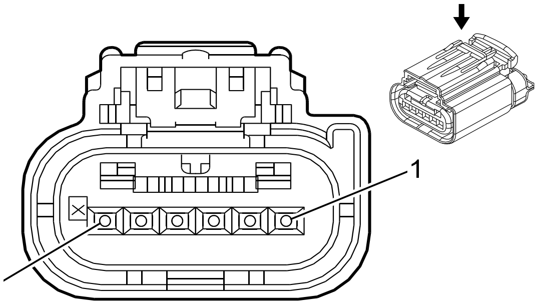
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q18B Fuel Pressure Regulator 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	D-BU/WH	2530	Fuel Rail Pressure Solenoid Control	I	—
2	0.5	BK/YE	2834	Fuel Rail Pressure Solenoid Low Reference	I	—

Q20 Intake Air Flow Valve



2482433

Connector Part Information

Harness Type: Engine
OEM Connector: 13699991
Service Connector: 13586581
Description: 6-Way F 0.64 GET Series, Sealed (BK)

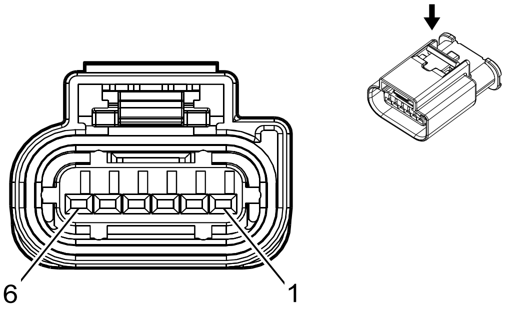
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q20 Intake Air Flow Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	581	Throttle Actuator Control Open	I	—
2	0.5	BN/WH	582	Throttle Actuator Control Close	I	—
3	0.5	D-BU/WH	3630	Throttle Position Sensor (SENT1) Signal	I	—
4	0.5	BK/BN	2752	Throttle Position Sensor Low Reference	I	—
5	0.5	BN/RD	2701	Throttle Position Sensor 5V Reference	I	—
6	—	—	—	Not Occupied	—	—

Q38 Throttle Body



3747579

Connector Part Information

Harness Type: Engine
OEM Connector: 33220833
Service Connector: 19352911
Description: 6-Way F 1.2 MCON Series, Sealed (BK)

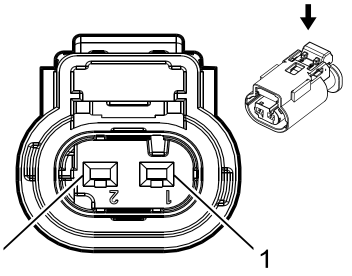
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q38 Throttle Body

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE	581	Throttle Actuator Control Open	I	—
2	0.5 0.5	BN BN/WH	582 582	Throttle Actuator Control Close Throttle Actuator Control Close	I I	LV1 LWN
3	0.5 0.5	D-BU/WH D-GN/	3630 485	Throttle Position Sensor (SENT1) Signal Throttle Position Sensor Signal 1	I I	LV1 LWN
4	0.5 0.5	TN BK/BN	2752 2752	Throttle Position Sensor Low Reference Throttle Position Sensor Low Reference	I I	LV1 LWN
5	0.5 0.5	GY BN/RD	2701 2701	Throttle Position Sensor 5V Reference Throttle Position Sensor 5V Reference	I I	LV1 LWN
6	—	—	—	Not Occupied	—	—

Q44 Engine Oil Pressure Control Solenoid Valve (LV1)



2717066

Connector Part Information

Harness Type: Oil Pressure Control Solenoid Valve Jumper
OEM Connector: 13503566
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

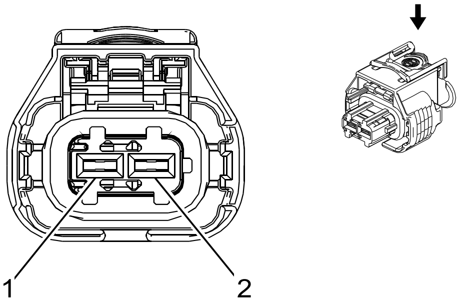
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q44 Engine Oil Pressure Control Solenoid Valve (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	5293	Powertrain Main Relay Fused Supply 4	I	—
2	—	BU	179	Oil Pump Command Signal	I	—

Q47 Exhaust Gas Recirculation Cooler Bypass Solenoid Valve



Connector Part Information

Harness Type: Engine
OEM Connector: 13930085
Service Connector: 13384371
Description: 2-Way F 2.8 Series, Sealed (BK)

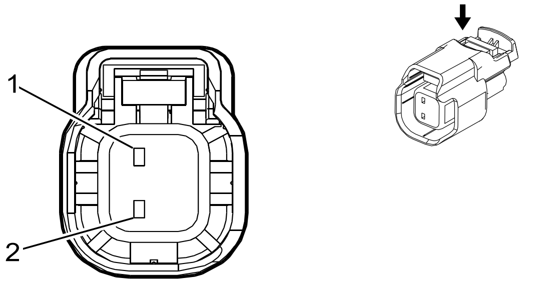
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q47 Exhaust Gas Recirculation Cooler Bypass Solenoid Valve

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	YE/D-BU	3231	Exhaust Gas Recirculation Cooler Bypass Solenoid Control	I	—
2	0.5	GY/D-BU	3230	Exhaust Gas Recirculation Cooler Bypass Solenoid Control	I	—

Q61 Reductant Injector



3028817

Connector Part Information

Harness Type: Engine
OEM Connector: 13946568
Service Connector: 19352404
Description: 2-Way F 1.5 Series, Sealed (BK)

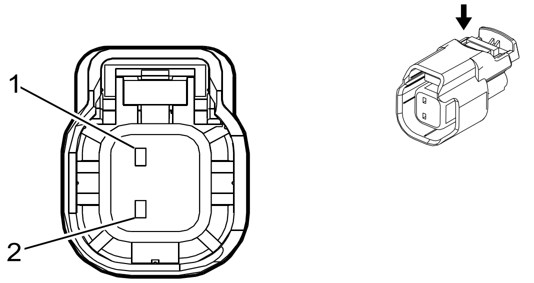
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q61 Reductant Injector

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BN/WH	3100	DEF Dosing Valve Low Control	I	—
2	0.5	BN	3099	DEF Dosing Valve High Control	I	—

Q67 Exhaust Aftertreatment Fuel Injector



Connector Part Information

Harness Type: Chassis
OEM Connector: 13820418
Service Connector: 13580230
Description: 2-Way F 1.5 Series, Sealed (BK)

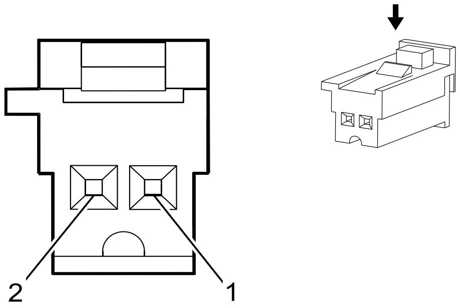
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q67 Exhaust Aftertreatment Fuel Injector

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	VT/BN	2927	Hydrocarbon Injector Low Control	I	—
2	0.75	BN/D-BU	2926	Hydrocarbon Injector High Control	I	—

Q77A Transmission Control Solenoid Valve 1 (M5U)



4051391

Connector Part Information

Harness Type: Transmission Control
OEM Connector: 13956948
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 MTS Series (VT)

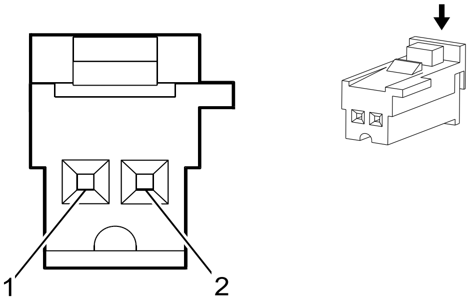
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q77A Transmission Control Solenoid Valve 1 (M5U)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	BN	6400	Clutch A Control	I	—
2	—	GY/BN	6388	Transmission High Side Driver 2 Signal	I	—

Q77B Transmission Control Solenoid Valve 2 (M5U)



4008644

Connector Part Information

Harness Type: Transmission Control
OEM Connector: 13941672
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 MTS Series (GY)

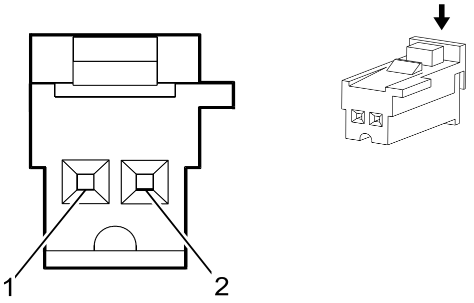
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q77B Transmission Control Solenoid Valve 2 (M5U)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	D-BU	6401	Clutch B Control	I	—
2	—	GY/BN	6388	Transmission High Side Driver 2 Signal	I	—

Q77C Transmission Control Solenoid Valve 3 (M5U)



4008644

Connector Part Information

Harness Type: Transmission Control
OEM Connector: 13941672
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 MTS Series (GY)

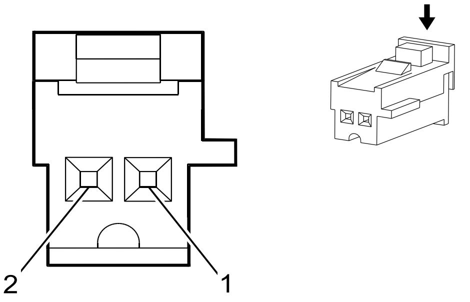
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q77C Transmission Control Solenoid Valve 3 (M5U)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	GY	6402	Clutch C Control	I	—
2	—	GY/BN	6388	Transmission High Side Driver 2 Signal	I	—

Q77D Transmission Control Solenoid Valve 4 (M5U)



4008636

Connector Part Information

Harness Type: Transmission Control
OEM Connector: 13947283
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 MTS Series (NA)

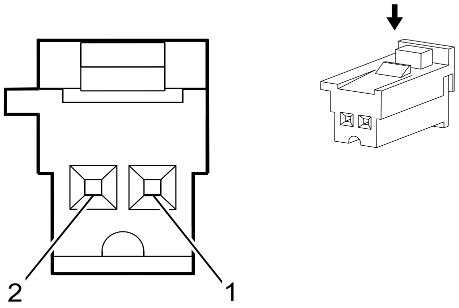
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q77D Transmission Control Solenoid Valve 4 (M5U)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	WH	4508	Transmission Clutch G Control	I	—
2	—	—	6387	Transmission High Side Driver 1 Signal Driver	I	—

Q77E Transmission Control Solenoid Valve 5 (M5U)



4051391

Connector Part Information

Harness Type: Transmission Control
OEM Connector: 13956948
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 MTS Series (VT)

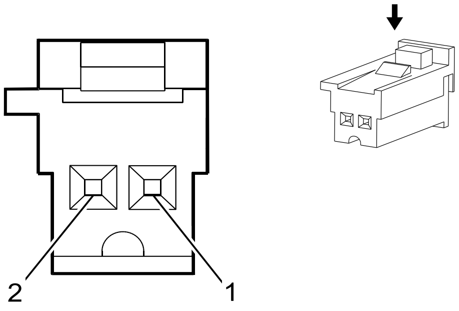
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q77E Transmission Control Solenoid Valve 5 (M5U)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	4507	Transmission Clutch H Control	I	—
2	—	—	6387	Transmission High Side Driver 1 Signal Driver	I	—

Q77F Transmission Control Solenoid Valve 6 (M5U)



4051391

Connector Part Information

Harness Type: Transmission Control
OEM Connector: 13956948
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 MTS Series (VT)

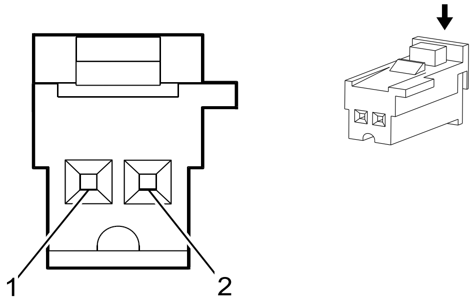
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q77F Transmission Control Solenoid Valve 6 (M5U)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	6403	Clutch D Control	I	—
2	—	GY/BN	6388	Transmission High Side Driver 2 Signal	I	—

Q77G Transmission Control Solenoid Valve 7 (M5U)



4008644

Connector Part Information

Harness Type: Transmission Control
OEM Connector: 13941672
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 0.64 MTS Series (GY)

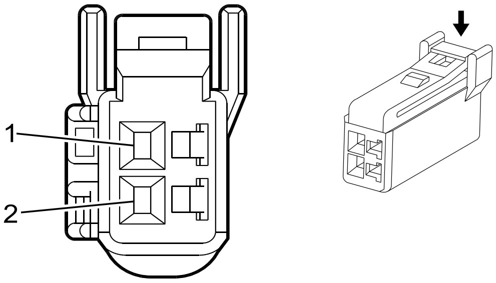
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q77G Transmission Control Solenoid Valve 7 (M5U)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	YE/BN	6404	Clutch E Control	I	—
2	—	GY/BN	6388	Transmission High Side Driver 2 Signal	I	—

Q77H Transmission Control Solenoid Valve 8 (M5U)



4051682

Connector Part Information

Harness Type: Transmission Control
OEM Connector: 7287-0122
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 040 III Series (NA)

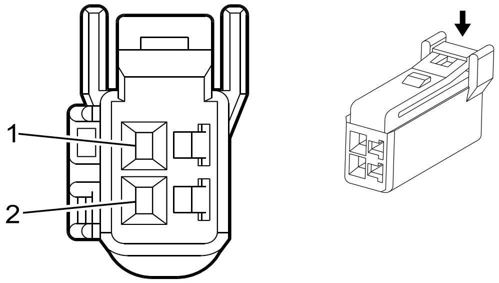
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q77H Transmission Control Solenoid Valve 8 (M5U)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	6387	Transmission High Side Driver 1 Signal Driver	I	—
2	—	—	6380	TCC On/Off Solenoid A Control	I	—

Q77J Transmission Control Solenoid Valve 9 (M5U)



4051682

Connector Part Information

Harness Type: Transmission Control
OEM Connector: 7287-0122
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 040 III Series (NA)

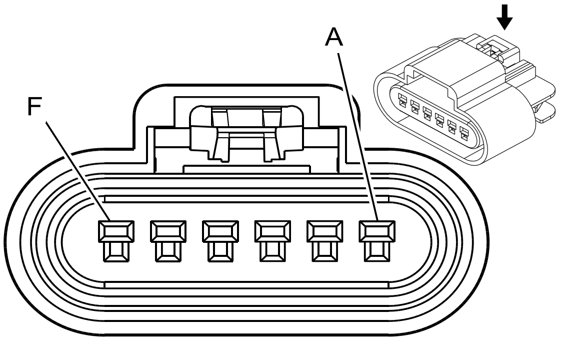
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q77J Transmission Control Solenoid Valve 9 (M5U)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	GY/BN	6388	Transmission High Side Driver 2 Signal	I	—
2	—	YE/BN	6210	TCC On/Off Solenoid B Control	I	—

Q85 Cooling Fan Clutch (LWN)



632357

Connector Part Information

Harness Type: Electro Viscous Fan Clutch Jumper
OEM Connector: 19177552
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 150 GT Series, Sealed (BK)

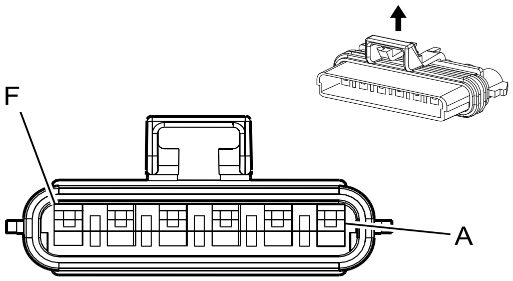
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

Q85 Cooling Fan Clutch (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	BK	550	Ground	I	—
B	—	WH	2368	Cooling Fan Control Signal	I	—
C	—	BK/BN	6141	Cooling Fan Speed Low Reference	I	—
D	—	BU/VT	2364	Cooling Fan Speed Signal	I	—
E	—	GY/RD	2365	Cooling Fan Speed 5V Reference	I	—
F	—	—	—	Not Occupied	—	—

R3 Blower Motor Resistor



535914

Connector Part Information

Harness Type: Engine
OEM Connector: 12160746
Service Connector: 15306007
Description: 6-Way F 280 Metri-Pack Flexlock Series, Sealed (L-GY)

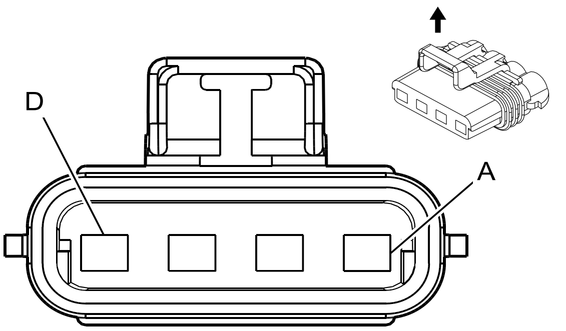
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

R3 Blower Motor Resistor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	5	RD/BK	542	Battery Positive Voltage	I	—
B	0.8	OG	52	High Blower Motor Control	I	—
C	5	BK	1250	Ground	I	—
D	0.8	TN	63	Medium Blower Motor Control 1	I	—
E	0.8	YE	60	Low Blower Motor Control	I	—
F	2	L-BU	72	Medium 2 Blower Motor Control	I	—

R3B Blower Motor Resistor - Auxiliary



697053

Connector Part Information

Harness Type: Auxiliary HVAC
OEM Connector: 12129566
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 280 Metri-Pack Series, Sealed (GY)

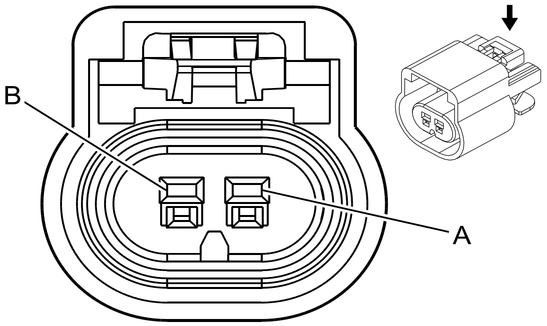
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

R3B Blower Motor Resistor - Auxiliary

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	3	YE	1176	Auxiliary Blower Motor Low Speed Control	I	—
B	—	—	—	Not Occupied	—	—
C	3	L-BU	1072	Auxiliary Blower Motor Medium Speed Control	I	—
D	3	YE	1172	Auxiliary Blower Motor Control	I	—

R6A Terminating Resistor - High Speed Bus



523630

Connector Part Information

Harness Type: Engine
OEM Connector: 13510085
Service Connector: 13580114
Description: 2-Way F 150 GT Series, Sealed (BK)

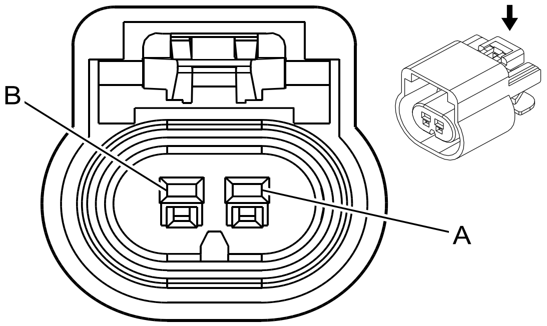
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

R6A Terminating Resistor - High Speed Bus

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	M5U
B	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	M5U

R10 Cooling Fan Resistor



523630

Connector Part Information

Harness Type: Engine
OEM Connector: 13510085
Service Connector: 13580114
Description: 2-Way F 150 GT Series, Sealed (BK)

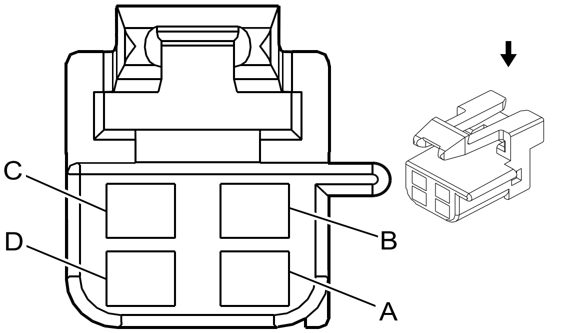
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

R10 Cooling Fan Resistor

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	GY/RD	2365	Cooling Fan Speed 5V Reference	I	—
B	0.5	BU/VT	2364	Cooling Fan Speed Signal	I	—

S2 Transmission Manual Shift Switch (MYD)



130637

Connector Part Information

Harness Type: Steering Column
OEM Connector: 12064760
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 Metri-Pack Series (BK)

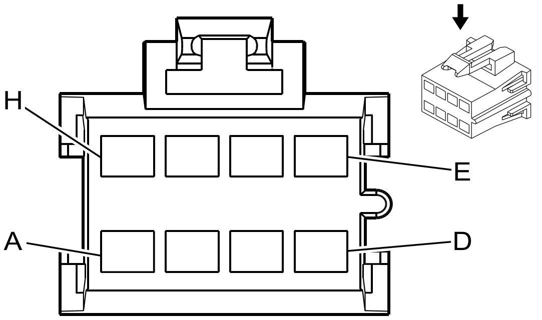
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

S2 Transmission Manual Shift Switch (MYD)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A - B	—	—	—	Not Occupied	—	—
C	—	PU	5526	Tap Up/Tap Down Switch Signal	I	—
D	—	PK	1444	12V Reference	I	—

S13A Door Lock Switch - Rear Cargo



62469

Connector Part Information

Harness Type: Rear Cargo Door
OEM Connector: 12064998
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 280 Metri-Pack Series (BK)

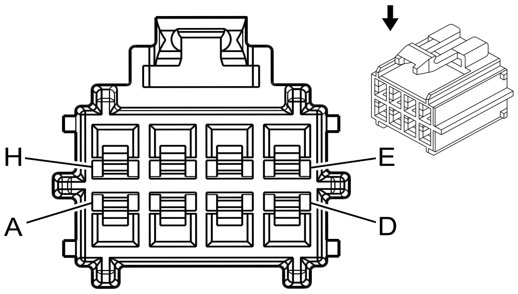
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S13A Door Lock Switch - Rear Cargo

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	L-BU	244	Passenger Door Lock Switch Lock Control	I	—
B - C	—	—	—	Not Occupied	—	—
D	0.35	D-BU/	245	Passenger Door Lock Switch Unlock Control	I	—
E	0.35	BK/WH	1051	Signal Ground	I	—
F - H	—	—	—	Not Occupied	—	—

S13D Door Lock Switch - Driver



851474

Connector Part Information

Harness Type: Driver Door
OEM Connector: 15418533
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 280 GT Series (L-GN)

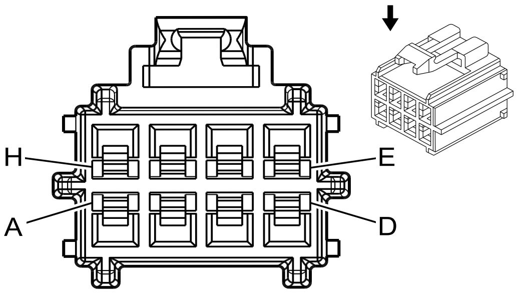
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S13D Door Lock Switch - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK	450	Ground	I	—
B	0.35	BK	450	Ground	I	—
C	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—
D - E	—	—	—	Not Occupied	—	—
F	0.35	OG/BK	781	Driver Door Lock Switch Unlock Signal	I	—
G	0.35	PK/BK	780	Driver Door Lock Switch Lock Signal	I	—
H	—	—	—	Not Occupied	—	—

S13P Door Lock Switch - Passenger



851474

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 15418533
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 280 GT Series (L-GN)

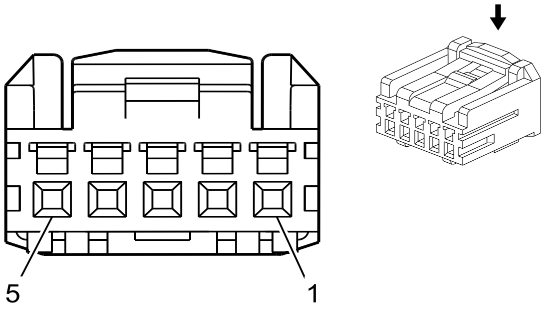
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S13P Door Lock Switch - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK	1850	Ground	I	—
B	0.35	BK	1850	Ground	I	—
C	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—
D - E	—	—	—	Not Occupied	—	—
F	0.35	D-BU/	245	Passenger Door Lock Switch Unlock Control	I	—
G	0.35	L-BU	244	Passenger Door Lock Switch Lock Control	I	—
H	—	—	—	Not Occupied	—	—

S16 Driver Information Center Switch



1673494

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15491277
Service Connector: 88988747
Description: 5-Way F HCM Series (BK)

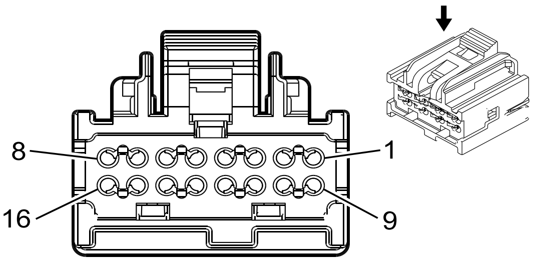
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S16 Driver Information Center Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	D-GN/WH	1358	Driver Information Center Switch Signal	I	—
2	0.35	BN	897	Driver Information Center Switch Low Reference	I	—
3	0.35	PK	893	Driver Information Center Select Menu Switch Signal	I	—
4	0.5	YE	6817	LED Backlight Dimming Control	I	—
5	0.5	BK/WH	351	Signal Ground	I	—

S30 Headlamp Switch



2127936

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13568238
Service Connector: 13504130
Description: 16-Way F 64 Micro-Series, Sealed (BK)

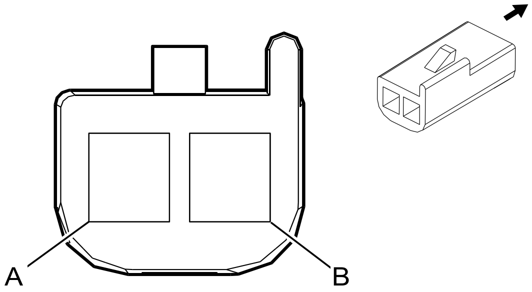
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13579976	J-35616-64B (LT BU)	J-38125-21	15359541	Delphi 4	M	M
II	13582245	J-35616-64B (LT BU)	J-38125-21	15359541	Delphi 4	M	M

S30 Headlamp Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	WH	103	Headlamp Switch On Signal	II	—
2	0.35	L-BU	13	Headlamp Switch Park Lamp Signal	II	—
3	0.35	D-GN	306	Headlamp Switch Headlamps Off Signal Control	II	—
4 - 6	—	—	—	Not Occupied	—	—
7	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	II	—
8	0.5	BK/WH	351	Signal Ground	I	—
9	0.35	PU/	328	Interior Lamp Defeat Switch Signal	II	—
10 - 11	—	—	—	Not Occupied	—	—
12	0.35	D-BU/WH	149	Courtesy Lamp Control	II	—
13	0.35	D-GN	44	Instrument Panel Lamp Dimmer Switch Signal	II	—
14	—	—	—	Not Occupied	—	—
15	0.35	OG/WH	812	12V Reference	II	—
16	—	—	—	Not Occupied	—	—

S33 Horn Switch



Connector Part Information

Harness Type: Steering Wheel
OEM Connector: 12047662
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 Metri-Pack Series (BK)

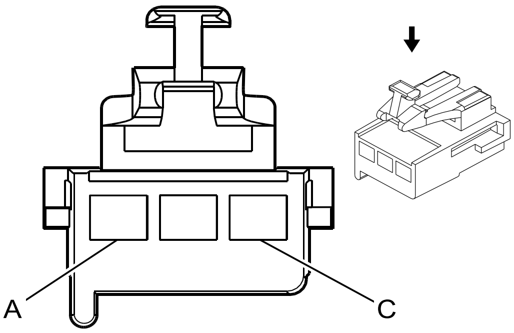
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

S33 Horn Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	TN	28	Horn Relay Control	I	—
B	—	BK	350	Ground	I	—

S34 HVAC Controls Switch Assembly X1



68737

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12129489
Service Connector: 19368864
Description: 3-Way F 280 Metri-Pack Flexlock Series (BK)

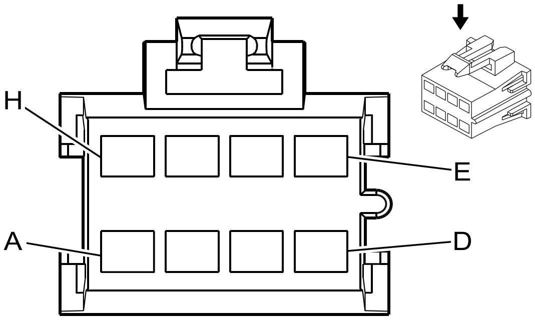
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S34 HVAC Controls Switch Assembly X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	WH	119	Mode Door Control	I	—
B	1	BK	550	Ground	I	—
C	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—

S34 HVAC Controls Switch Assembly X2



62469

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12064998
Service Connector: 15306189
Description: 8-Way F 280 Metri-Pack Series (BK)

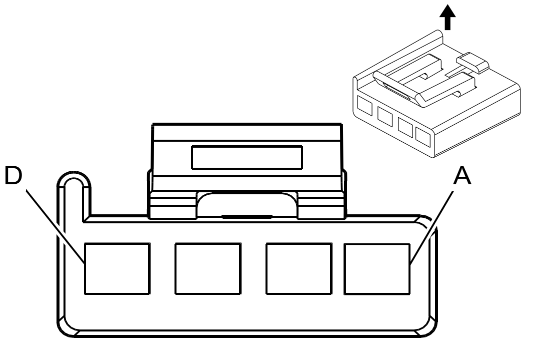
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S34 HVAC Controls Switch Assembly X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	YE	60	Low Blower Motor Control	I	—
B	0.8	TN	63	Medium Blower Motor Control 1	I	—
C	0.8	L-BU	72	Medium 2 Blower Motor Control	I	—
D	0.8	OG	52	High Blower Motor Control	I	—
E	1	BN	141	Run Ignition 3 Voltage	I	—
F	0.8	L-BU	733	Air Temperature Door Position Signal	I	—
G	1	WH	119	Mode Door Control	I	—
H	0.5	D-GN/WH	762	A/C Request Signal	I	—

S34 HVAC Controls Switch Assembly X3



62450

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12052856
Service Connector: 12125636
Description: 4-Way F 280 Metri-Pack Series (BK)

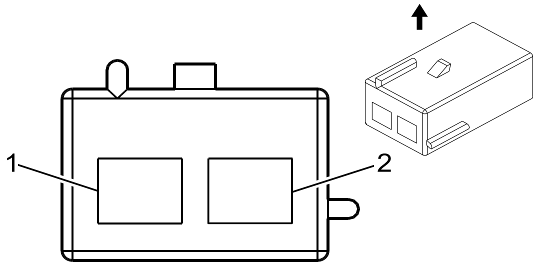
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S34 HVAC Controls Switch Assembly X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	RD/WH	4440	Battery Positive Voltage	I	—
B	0.35	BN	341	Run Ignition 3 Voltage	I	—
C	1	BK	550	Ground	I	—
D	0.35	WH	193	Rear Defog Relay Control	I	—

S34 HVAC Controls Switch Assembly X4



1283895

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15318080
Service Connector: 21019410
Description: 2-Way F 280 Metri-Pack Series (BK)

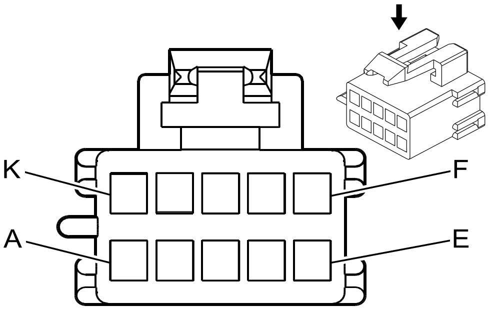
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S34 HVAC Controls Switch Assembly X4

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	L-GN	66	A/C Request Signal	I	—
2	0.5	D-GN/WH	762	A/C Request Signal	I	—

S34F HVAC Controls Switch Assembly - Auxiliary Front (REAR HVAC CONTROLS)



62464

Connector Part Information

Harness Type: Headliner
OEM Connector: 12064769
Service Connector: 12101762
Description: 10-Way F 150 Metri-Pack Series (NA)

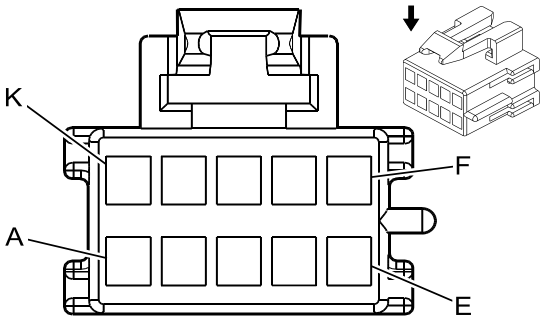
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575464	J-35616-14 (GN)	J-38125-12A	15326030	Delphi 2	E	C

S34F HVAC Controls Switch Assembly - Auxiliary Front (REAR HVAC CONTROLS)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—
B	0.35	BK	1850	Ground	I	—
C	0.5	D-BU/	1926	Auxiliary Blower Motor Low Speed Control	I	—
D	0.5	WH	1924	Auxiliary Blower Motor High Speed Control	I	—
E	0.5	OG	1925	Auxiliary Blower Motor Medium Speed Control	I	—
F	0.35	YE	5262	Dual Logic Module Rear Control Enable Signal	I	—
G	0.35	BN	341	Run Ignition 3 Voltage	I	—
H	0.35	PU/	5260	Dual Logic Module Front Temperature Signal	I	—
J	0.35	TN	5261	Dual Logic Module Front Mode Signal	I	—
K	—	—	—	Not Occupied	—	—

S34F HVAC Controls Switch Assembly - Auxiliary Front (-REAR HVAC CONTROLS)



803688

Connector Part Information

Harness Type: Headliner
OEM Connector: 12064871
Service Connector: 12101832
Description: 10-Way F 150 Metri-Pack Series (BU)

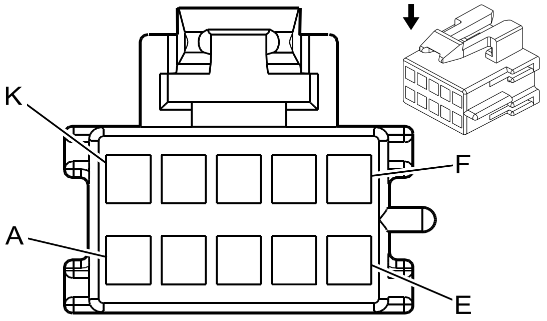
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575464	J-35616-14 (GN)	J-38125-12A	15326030	Delphi 2	E	C

S34F HVAC Controls Switch Assembly - Auxiliary Front (-REAR HVAC CONTROLS)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—
B	0.35	BK	1850	Ground	I	—
C	0.5	D-BU/	1926	Auxiliary Blower Motor Low Speed Control	I	—
D	0.5	WH	1924	Auxiliary Blower Motor High Speed Control	I	—
E	0.5	OG	1925	Auxiliary Blower Motor Medium Speed Control	I	—
F	0.35	BK	1850	Ground	I	—
G	0.35	BN	341	Run Ignition 3 Voltage	I	—
H	0.35	OG	2775	Rear Air Temperature Motor Control	I	—
J	0.35	GY	2599	Rear Mode Motor Signal	I	—
K	—	—	—	Not Occupied	—	—

S34R HVAC Controls Switch Assembly - Auxiliary Rear



803688

Connector Part Information

Harness Type: Headliner
OEM Connector: 12064871
Service Connector: 12101832
Description: 10-Way F 150 Metri-Pack Series (BU)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575464	J-35616-14 (GN)	J-38125-12A	15326030	Delphi 2	E	C
II	19300422	J-35616-14 (GN)	J-38125-12A	15326030	Delphi 2	E	C

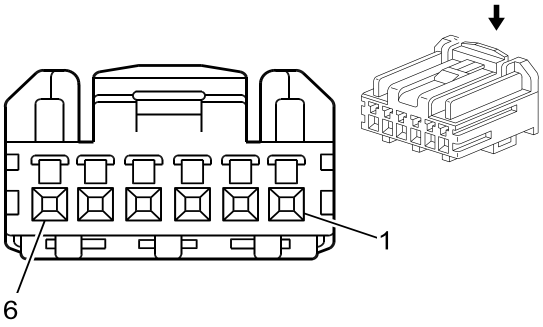
S34R HVAC Controls Switch Assembly - Auxiliary Rear

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35 0.35	BN/WH BN/WH	230 230	Instrument Panel Lamp Dimming Control Instrument Panel Lamp Dimming Control	I II	C69+5BV C69+REAR HVAC CONTROLS
B	0.5 0.5	BK BK	1850 1050	Ground Ground	I I	C69+5BV C69+REAR HVAC CONTROLS
C	0.5	D-BU/	1926	Auxiliary Blower Motor Low Speed Control	II	—
D	0.5	WH	1924	Auxiliary Blower Motor High Speed Control	II	—
E	0.5	OG	1925	Auxiliary Blower Motor Medium Speed Control	II	—
F	0.35 0.5	PK/BK PK/BK	5265 5265	Dual Logic Module Rear Control Signal Dual Logic Module Rear Control Signal	I I	C69+5BV C69+REAR HVAC CONTROLS
G	0.35 0.35	BN BN	341 341	Run Ignition 3 Voltage Run Ignition 3 Voltage	I II	C69+5BV C69+REAR HVAC CONTROLS
H	0.35 0.5	BN BN	5263 5263	Dual Logic Module Rear Temperature Signal Dual Logic Module Rear Temperature Signal	I I	C69+5BV C69+REAR HVAC CONTROLS

S34R HVAC Controls Switch Assembly - Auxiliary Rear (cont'd)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
J	0.35 0.5	PU/WH PU/WH	5264 5264	Dual Logic Module Rear Mode Signal Dual Logic Module Rear Mode Signal	II II	C69+5BV C69+REAR HVAC CONTROLS
K	—	—	—	Not Occupied	—	—

S39 Ignition Switch



3681331

Connector Part Information

Harness Type: Steering Column
OEM Connector: HCMPB-C06-K
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 0.64 HCM Series (BK)

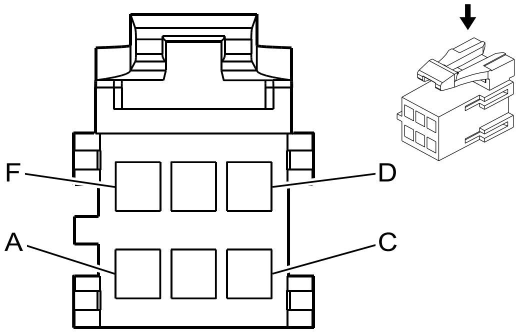
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

S39 Ignition Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	—	PK	3	Run/Crank Ignition 1 Voltage	I	—
3	—	BN	4	Accessory Ignition Voltage	I	—
4	—	RD/WH	540	Battery Positive Voltage	I	—
5	—	PK	1020	Off/Run/Crank Ignition Voltage	I	—
6	—	WH	530	Off/Run/Crank Ignition Voltage	I	—

S40 Passenger Air Bag Disable Switch



362753

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15305286
Service Connector: 15306014
Description: 6-Way F 150 Metri-Pack Series (YE)

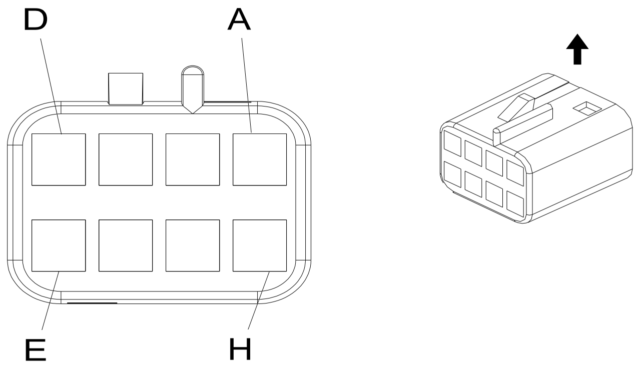
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S40 Passenger Air Bag Disable Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	TN/BK	371	Passenger IP Module Disable Switch Signal	I	—
B	0.35	PK	1139	Run/Crank Ignition 1 Voltage	I	—
C	0.35	D-BU/	2307	Passenger Air Bag On Indicator Control	I	—
D	0.5	PK	353	Passenger IP Module Suppression Indicator Control	I	—
E	0.5	BK/WH	1751	Signal Ground	I	—
F	0.35	D-GN	2308	Passenger Air Bag Off Indicator Control	I	—

S51 Telematics Button Assembly



Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12047886
Service Connector: 13584485
Description: 8-Way F 150 Metri-Pack Series (BK)

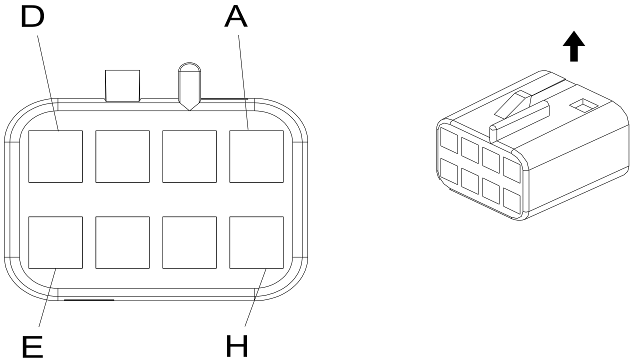
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S51 Telematics Button Assembly

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	L-GN/BK	2515	Keypad Control	I	—
B	0.8	D-GN/WH	2514	Keypad Signal	I	—
C - D	—	—	—	Not Occupied	—	—
E	1	BK/WH	351	Signal Ground	I	—
F	0.8	YE/BK	2516	Keypad Green LED Control	I	—
G	0.8	BN/WH	2517	Keypad Red LED Control	I	—
H	—	—	—	Not Occupied	—	—

S52 Outside Rearview Mirror Switch



62439

Connector Part Information

Harness Type: Driver Door
OEM Connector: 12047886
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 150 Metri-Pack Series (BK)

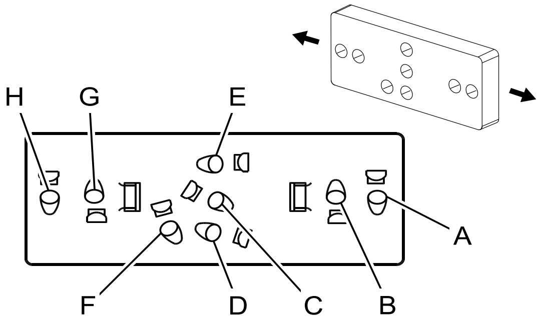
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S52 Outside Rearview Mirror Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	OG/WH	881	Right Mirror Motor Right Control	I	—
B	0.35	PU/WH	889	Right Mirror Motor Down Control	I	—
C	0.35	BN/WH	1498	Right Mirror Motor Up Control	I	—
D	0.5	BK	450	Ground	I	—
E	0.5	RD/WH	4340	Battery Positive Voltage	I	—
F	0.35	L-GN	89	Left Mirror Motor Down Control	I	—
G	0.35	WH	81	Left Mirror Motor Right Control	I	—
H	0.35	YE	88	Left Mirror Motor Up Control	I	—

S64D Seat Adjuster Switch - Driver (AG1)



387555

Connector Part Information

Harness Type: Driver Seat
OEM Connector: 12066386
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F Pin Grip Connector (GY)

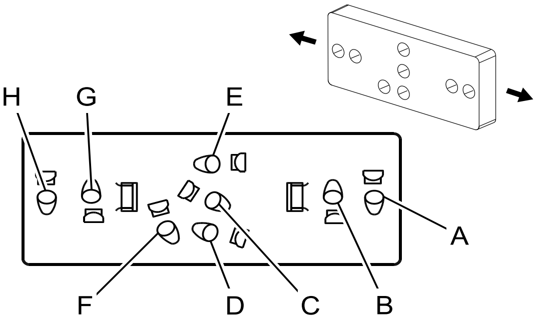
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

S64D Seat Adjuster Switch - Driver (AG1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	L-BU	283	Driver Power Seat Rear Vertical Motor Down Control	I	—
B	—	YE	282	Driver Power Seat Rear Vertical Motor Up Control	I	—
C	—	BK	450	Ground	I	—
D	—	TN	285	Driver Power Seat Horizontal Motor Forward Control	I	—
E	—	L-GN	284	Driver Power Seat Horizontal Motor Rearward Control	I	—
F	—	RD/WH	3540	Battery Positive Voltage	I	—
G	—	D-BU	287	Driver Power Seat Front Vertical Motor Down Control	I	—
H	—	D-GN	286	Driver Power Seat Front Vertical Motor Up Control	I	—

S64P Seat Adjuster Switch - Passenger (AG2)



387555

Connector Part Information

Harness Type: Passenger Seat
OEM Connector: 12066386
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F Pin Grip Connector (GY)

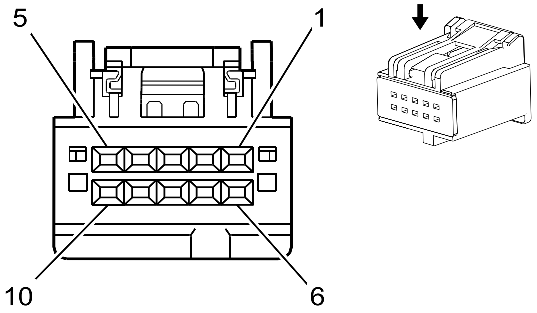
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

S64P Seat Adjuster Switch - Passenger (AG2)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	L-BU	289	Passenger Power Seat Rear Vertical Motor Down Control	I	—
B	—	YE	288	Passenger Power Seat Rear Vertical Motor Up Control	I	—
C	—	BK	1850	Ground	I	—
D	—	TN	296	Passenger Power Seat Horizontal Motor Forward Control	I	—
E	—	L-GN	290	Passenger Power Seat Horizontal Motor Rearward Control	I	—
F	—	RD/WH	3540	Battery Positive Voltage	I	—
G	—	D-BU	298	Passenger Power Seat Front Vertical Motor Down Control	I	—
H	—	D-GN	297	Passenger Power Seat Front Vertical Motor Up Control	I	—

S70L Steering Wheel Controls Switch - Left (K34)



1399235

Connector Part Information

Harness Type: Steering Wheel
OEM Connector: 30700-1100
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 H-DAC Series (GY)

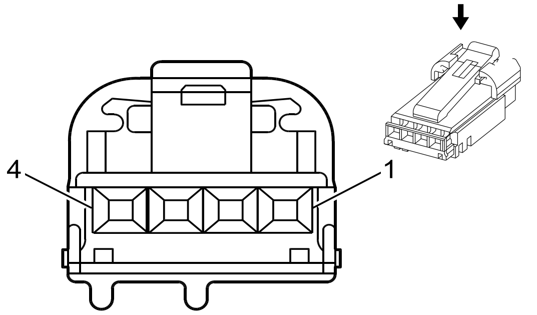
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

S70L Steering Wheel Controls Switch - Left (K34)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	PK	1444	12V Reference	I	—
2	—	—	—	Not Occupied	—	—
3	—	GY	1884	Cruise Control Set/Coast/Resume/Accelerate Switch Signal	I	—
4 - 5	—	—	—	Not Occupied	—	—
6	—	BN	6136	Control	I	—
7	—	—	—	Not Occupied	—	—
8	—	BK	350	Ground	I	—
9	—	GN/WH	7158	Cruise Control Indicator Dimming Signal	I	—
10	—	—	—	Not Occupied	—	—

S70R Steering Wheel Controls Switch - Right (W1Y)



1709750

Connector Part Information

Harness Type: Steering Wheel
OEM Connector: 31068-1010
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 0.64 H-DAC Series (BK)

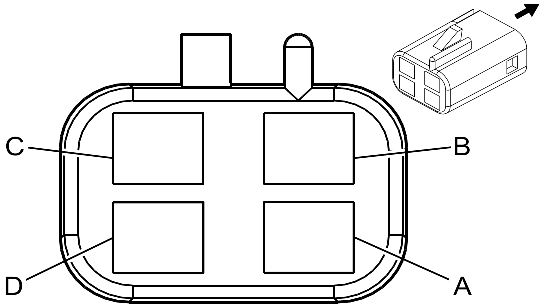
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

S70R Steering Wheel Controls Switch - Right (W1Y)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	BK	350	Ground	I	—
2	—	BN	6136	Control	I	—
3	—	PK	1444	12V Reference	I	—
4	—	L-GN	6818	Steering Wheel Resistor Ladder Signal 1	I	—

S74 Tow/Haul Mode Switch



39660

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12047785
Service Connector: 12102900
Description: 4-Way F 150 Metri-Pack Series (BK)

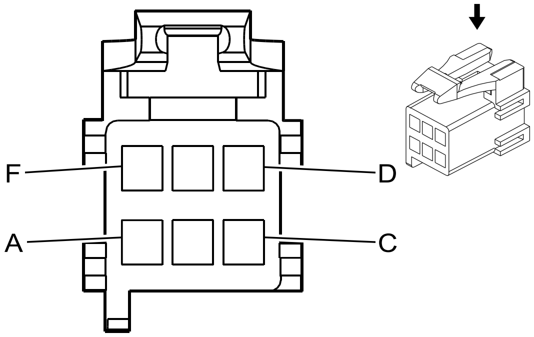
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S74 Tow/Haul Mode Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BK/WH	351	Signal Ground	I	—
B	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—
C	—	—	—	Not Occupied	—	—
D	0.35	L-BU	1788	Traction Control Switch Signal 1	I	—

S75 Traction Control Switch



304345

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12177195
Service Connector: 15305931
Description: 6-Way F 150 Metri-Pack Series (BK)

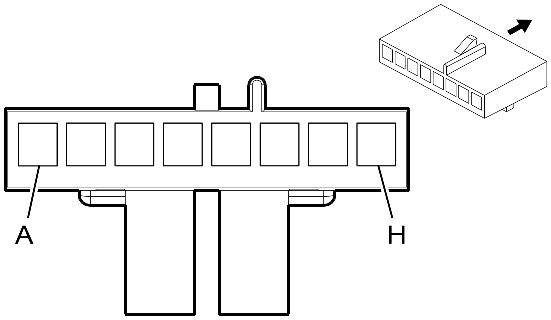
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S75 Traction Control Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A - B	—	—	—	Not Occupied	—	—
C	0.35	BK/WH	351	Signal Ground	I	—
D	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—
E	—	—	—	Not Occupied	—	—
F	0.5	D-BU/	6727	Vehicle Stability Control Off Switch Signal	I	—

S78 Turn Signal/Multifunction Switch X1



39746

Connector Part Information

Harness Type: Steering Column
OEM Connector: 12064862
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 150 Metri-Pack Series (BK)

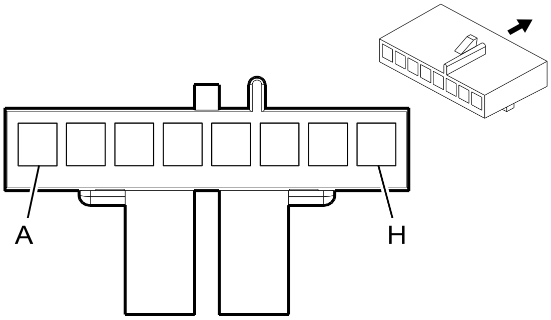
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

S78 Turn Signal/Multifunction Switch X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A - B	—	—	—	Not Occupied	—	—
C	—	BK/WH	351	Signal Ground	I	—
D	—	TN	664	Hazard Switch Right Turn Signal	I	—
E	—	D-GN	663	Hazard Switch Left Turn Signal	I	—
F	—	BK/WH	351	Signal Ground	I	—
G	—	WH	111	Hazard Switch Signal	I	—
H	—	—	—	Not Occupied	—	—

S78 Turn Signal/Multifunction Switch X2



39746

Connector Part Information

Harness Type: Steering Column
OEM Connector: 12064862
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 150 Metri-Pack Series (BK)

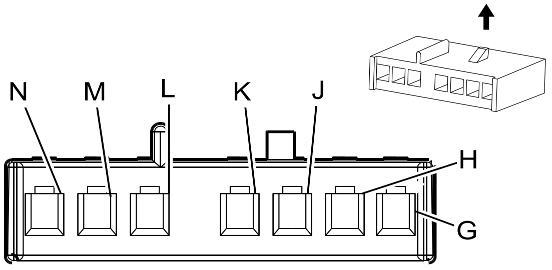
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

S78 Turn Signal/Multifunction Switch X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A - B	—	—	—	Not Occupied	—	—
C	—	YE	525	Headlamp Dimmer Switch Low Beam Signal	I	—
D	—	BK/WH	351	Signal Ground	I	—
E	—	YE	307	Headlamp Switch Flash To Pass Signal	I	—
F - H	—	—	—	Not Occupied	—	—

S78 Turn Signal/Multifunction Switch X3



811190

Connector Part Information

Harness Type: Steering Column
OEM Connector: 15339058
Service Connector: Service by Harness - See Part Catalog
Description: 7-Way F 150 Metri-Pack Series (GY)

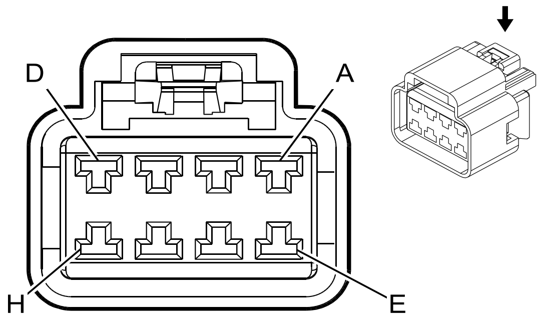
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

S78 Turn Signal/Multifunction Switch X3

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
G - J	—	—	—	Not Occupied	—	—
K	—	L-GN	1715	Windshield Wiper Switch High Signal	I	—
L	—	PK	94	Windshield Washer Switch Signal	I	—
M	—	TN/BK	6009	Windshield Wiper Switch Low Reference	I	—
N	—	L-BU	1714	Windshield Wiper Switch Low Signal	I	—

S79D Window Switch - Driver



556473

Connector Part Information

Harness Type: Driver Door
OEM Connector: 15459914
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 280 GT Series (BK)

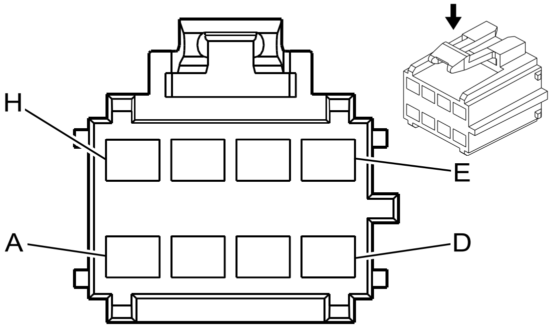
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S79D Window Switch - Driver

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	3	L-BU	166	Power Window Master Switch Right Front Up Signal	I	—
B	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—
C	3	D-GN	1001	Retained Accessory Power Ignition	I	—
D	3	TN	167	Power Window Master Switch Right Front Down Signal	I	—
E	—	—	—	Not Occupied	—	—
F	3	BK	450	Ground	I	—
G	3	D-BU/	164	Power Window Motor Left Front Up Control	I	—
H	3	BN	165	Power Window Motor Left Front Down Control	I	—

S79P Window Switch - Passenger



333036

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 12191825
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 280 Metri-Pack Series (BN)

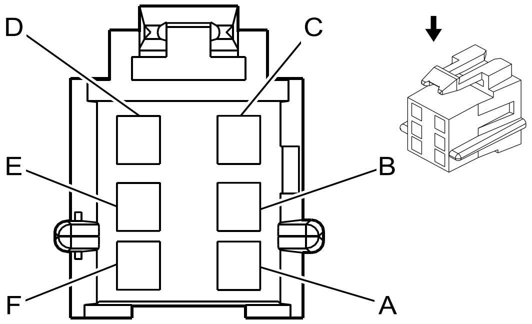
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S79P Window Switch - Passenger

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	3	D-GN	1001	Retained Accessory Power Ignition	I	—
B	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—
C	0.35	BK	1850	Ground	I	—
D	3	TN	167	Power Window Master Switch Right Front Down Signal	I	—
E	—	—	—	Not Occupied	—	—
F	3	BN	667	Power Window Motor Right Front Down Control	I	—
G	3	D-BU/	666	Power Window Motor Right Front Up Control	I	—
H	3	L-BU	166	Power Window Master Switch Right Front Up Signal	I	—

S85 Auxiliary Blower Motor Switch



62456

Connector Part Information

Harness Type: Auxiliary Heater Front
OEM Connector: 12064752
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 280 Metri-Pack Series (BK)

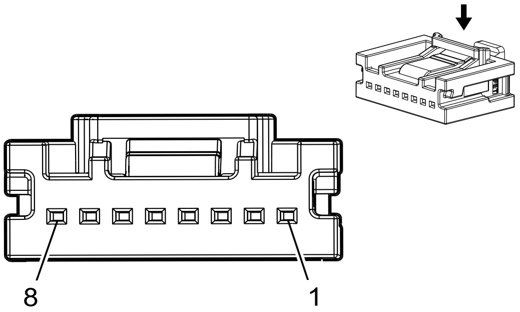
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S85 Auxiliary Blower Motor Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BN/WH	230	Instrument Panel Lamp Dimming Control	I	—
B	0.35	BK	450	Ground	I	—
C	—	—	—	Not Occupied	—	—
D	0.35	WH	1924	Auxiliary Blower Motor High Speed Control	I	—
E	0.35	D-BU/	1926	Auxiliary Blower Motor Low Speed Control	I	—
F	0.35	OG	1925	Auxiliary Blower Motor Medium Speed Control	I	—

S155 Lane Departure Warning Switch



4017639

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 33227522
Service Connector: 19354223
Description: 8-Way F Mini 50 Series (BK)

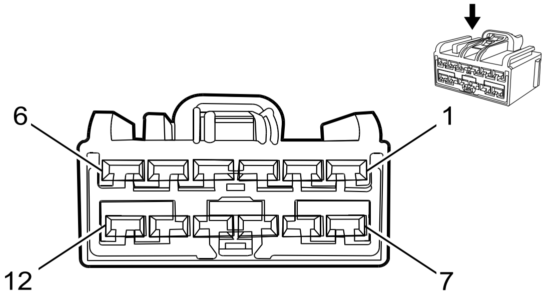
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	EL-35616-58 (BK)	No Tool Required	Not Required	Not Required	Not Required	Not Required

S155 Lane Departure Warning Switch

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	YE/GY	1382	LED Dimming Signal	I	—
2 - 3	—	—	—	Not Occupied	—	—
4	0.35	GY/WH	3153	Lane Departure Warning Disable Switch Signal	I	—
5	0.35	WH	6816	Indicator Dimming Control	I	—
6	—	—	—	Not Occupied	—	—
7	0.35	WH	3152	Lane Departure Warning Indicator Control	I	—
8	0.35	BK/WH	2151	Signal Ground	I	—

T1 Accessory DC/AC Power Inverter Module



2231648

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 10846814
Service Connector: 13580444
Description: 12-Way F 2.8 Kaizen Series (L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19300649	J-35616-4A (PU)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
II	19301752	J-35616-4A (PU)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
III	19301761	J-35616-4A (PU)	J-38125-11A	Not Available	Not Available	Not Available	Not Available

T1 Accessory DC/AC Power Inverter Module

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	—	—	—	Not Occupied	—	—
2	1	BK	5683	120 V AC Phase A	III	—
3 - 5	—	—	—	Not Occupied	—	—
6	3	RD/WH	4140	Battery Positive Voltage	II	—
7	1	WH	5685	120 V AC Neutral	III	—
8 - 9	—	—	—	Not Occupied	—	—
10	0.5	BK/WH	1351	Signal Ground	I	—
11	3	BK	550	Ground	II	—
12	0.35	D-GN	2266	DC To AC Inverter Control 2	I	—

T4M Radio Antenna

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Connector Part Information

Harness Type: Antenna
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way

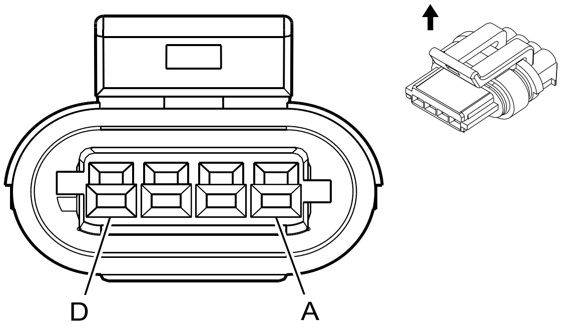
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

T4M Radio Antenna

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
BK	—	—	COAX	Coax Cable	I	—

T8A Ignition Coil 1 (L96/LC8)



1581641

Connector Part Information

Harness Type: Ignition Coil
OEM Connector: 15439568
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 GT Series, Sealed (BK)

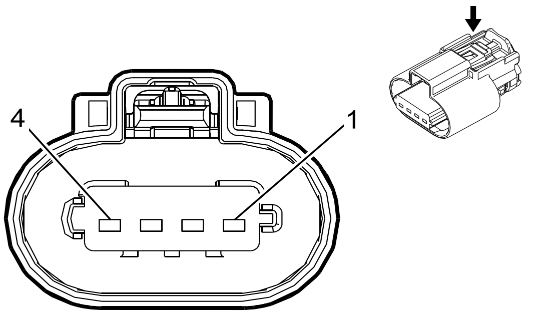
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8A Ignition Coil 1 (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BK	151	Signal Ground	I	—
B	0.5	BN	2129	Ignition Control Low Reference Bank 1	I	—
C	0.5	PU/	2121	Ignition Control 1	I	—
D	0.8	PK/	1039	Run/Crank Ignition 1 Voltage	I	—

T8A Ignition Coil 1 (LV1)



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19367596
Description: 4-Way F 150 MX Series, Sealed (BK)

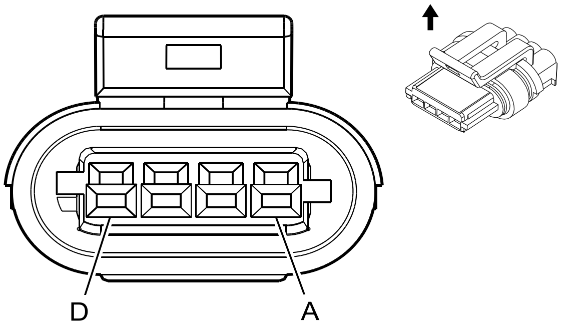
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8A Ignition Coil 1 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground	I	—
2	0.5	BK/D-BU	2129	Ignition Control Low Reference Bank 1	I	—
3	0.5	BU/VT	2121	Ignition Control 1	I	—
4	0.75	VT/GY	1039	Run/Crank Ignition 1 Voltage	I	—

T8B Ignition Coil 2 (L96/LC8)



1581641

Connector Part Information

Harness Type: Ignition Coil
OEM Connector: 15439568
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 GT Series, Sealed (BK)

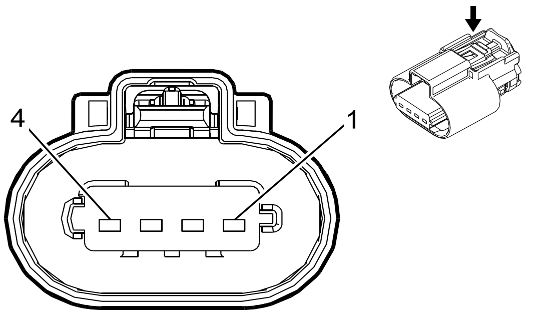
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8B Ignition Coil 2 (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BK	151	Signal Ground	I	—
B	0.5	BN/WH	2130	Ignition Control Low Reference Bank 2	I	—
C	0.5	OG/WH	2122	Ignition Control 2	I	—
D	0.8	PK/	1239	Run/Crank Ignition 1 Voltage	I	—

T8B Ignition Coil 2 (LV1)



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19367596
Description: 4-Way F 150 MX Series, Sealed (BK)

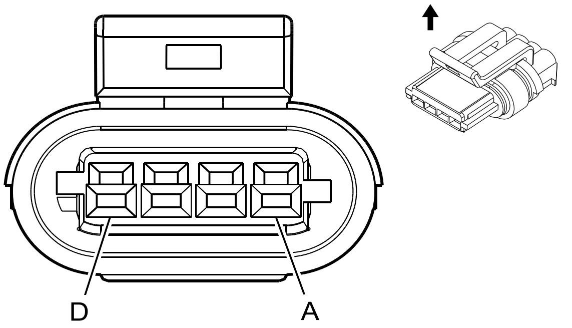
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8B Ignition Coil 2 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground	I	—
2	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	I	—
3	0.5	BU/WH	2122	Ignition Control 2	I	—
4	0.75	VT/BK	1239	Run/Crank Ignition 1 Voltage	I	—

T8C Ignition Coil 3 (L96/LC8)



1581641

Connector Part Information

Harness Type: Ignition Coil
OEM Connector: 15439568
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 GT Series, Sealed (BK)

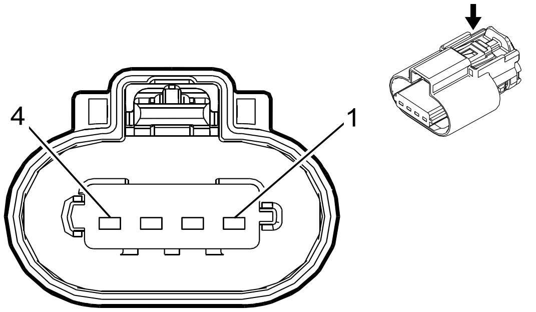
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8C Ignition Coil 3 (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BK	151	Signal Ground	I	—
B	0.5	BN	2129	Ignition Control Low Reference Bank 1	I	—
C	0.5	L-BU	2123	Ignition Control 3	I	—
D	0.8	PK/	1039	Run/Crank Ignition 1 Voltage	I	—

T8C Ignition Coil 3 (LV1)



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19367596
Description: 4-Way F 150 MX Series, Sealed (BK)

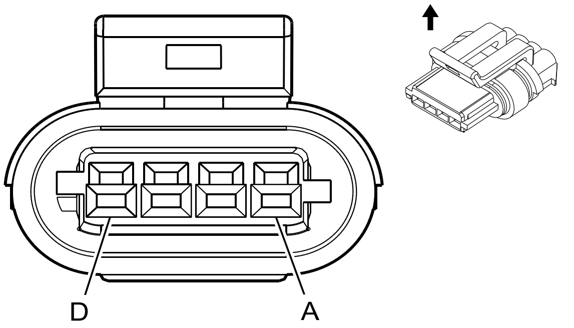
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8C Ignition Coil 3 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground	I	—
2	0.5	BK/D-BU	2129	Ignition Control Low Reference Bank 1	I	—
3	0.5	L-GN/D-BU	2123	Ignition Control 3	I	—
4	0.75	VT/GY	1039	Run/Crank Ignition 1 Voltage	I	—

T8D Ignition Coil 4 (L96/LC8)



1581641

Connector Part Information

Harness Type: Ignition Coil
OEM Connector: 15439568
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 GT Series, Sealed (BK)

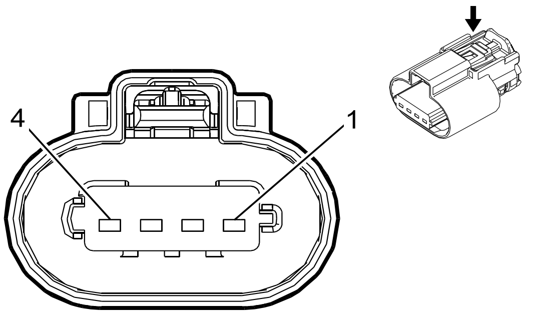
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8D Ignition Coil 4 (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BK	151	Signal Ground	I	—
B	0.5	BN/WH	2130	Ignition Control Low Reference Bank 2	I	—
C	0.5	D-GN/WH	2124	Ignition Control 4	I	—
D	0.8	PK/	1239	Run/Crank Ignition 1 Voltage	I	—

T8D Ignition Coil 4 (LV1)



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19367596
Description: 4-Way F 150 MX Series, Sealed (BK)

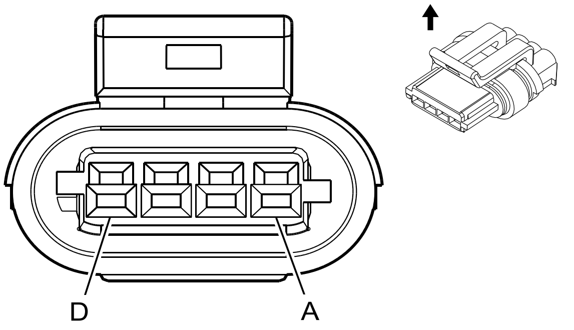
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8D Ignition Coil 4 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground	I	—
2	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	I	—
3	0.5	YE/D-BU	2124	Ignition Control 4	I	LV1
4	0.75	VT/BK	1239	Run/Crank Ignition 1 Voltage	I	—

T8E Ignition Coil 5 (L96/LC8)



1581641

Connector Part Information

Harness Type: Ignition Coil
OEM Connector: 15439568
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 GT Series, Sealed (BK)

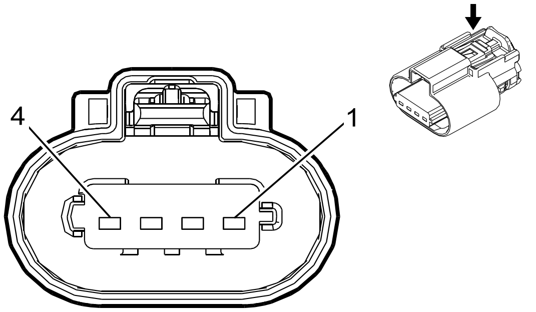
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8E Ignition Coil 5 (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BK	151	Signal Ground	I	—
B	0.5	BN	2129	Ignition Control Low Reference Bank 1	I	—
C	0.5	D-GN	2125	Ignition Control 5	I	—
D	0.8	PK/	1039	Run/Crank Ignition 1 Voltage	I	—

T8E Ignition Coil 5 (LV1)



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19367596
Description: 4-Way F 150 MX Series, Sealed (BK)

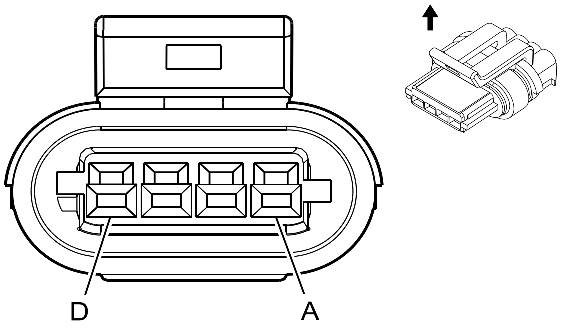
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8E Ignition Coil 5 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground	I	—
2	0.5	BK/D-BU	2129	Ignition Control Low Reference Bank 1	I	—
3	0.5	BU/GY	2125	Ignition Control 5	I	—
4	0.75	VT/GY	1039	Run/Crank Ignition 1 Voltage	I	—

T8F Ignition Coil 6 (L96/LC8)



1581641

Connector Part Information

Harness Type: Ignition Coil
OEM Connector: 15439568
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 GT Series, Sealed (BK)

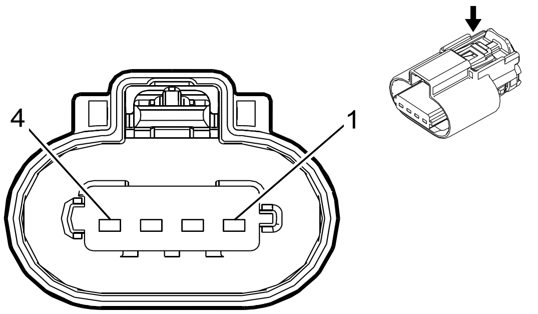
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8F Ignition Coil 6 (L96/LC8)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BK	151	Signal Ground	I	—
B	0.5	BN/WH	2130	Ignition Control Low Reference Bank 2	I	—
C	0.5	L-BU/WH	2126	Ignition Control 6	I	—
D	0.8	PK/	1239	Run/Crank Ignition 1 Voltage	I	—

T8F Ignition Coil 6 (LV1)



3240115

Connector Part Information

Harness Type: Engine
OEM Connector: 13863211
Service Connector: 19367596
Description: 4-Way F 150 MX Series, Sealed (BK)

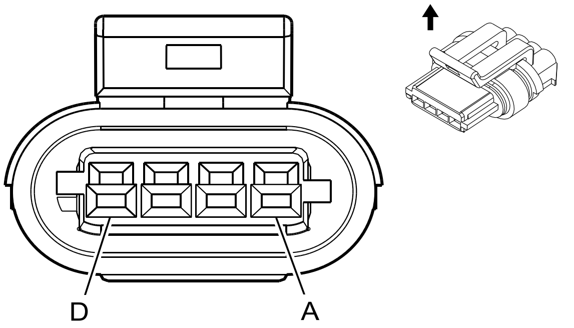
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8F Ignition Coil 6 (LV1)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.75	BK	350	Ground	I	—
2	0.5	BK/GY	2130	Ignition Control Low Reference Bank 2	I	—
3	0.5	BN/D-BU	2126	Ignition Control 6	I	—
4	0.75	VT/BK	1239	Run/Crank Ignition 1 Voltage	I	—

T8G Ignition Coil 7



1581641

Connector Part Information

Harness Type: Ignition Coil
OEM Connector: 15439568
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 GT Series, Sealed (BK)

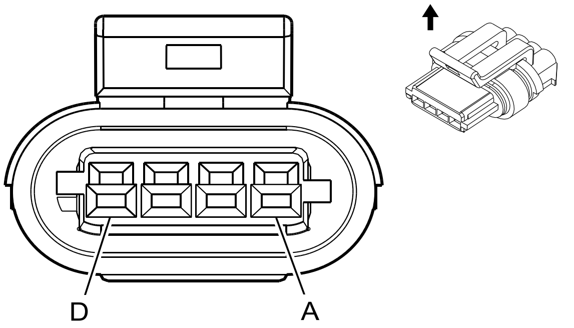
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8G Ignition Coil 7

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BK	151	Signal Ground	I	—
B	0.5	BN	2129	Ignition Control Low Reference Bank 1	I	—
C	0.5	RD	2127	Ignition Control 7	I	—
D	0.8	PK/	1039	Run/Crank Ignition 1 Voltage	I	—

T8H Ignition Coil 8



1581641

Connector Part Information

Harness Type: Ignition Coil
OEM Connector: 15439568
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 GT Series, Sealed (BK)

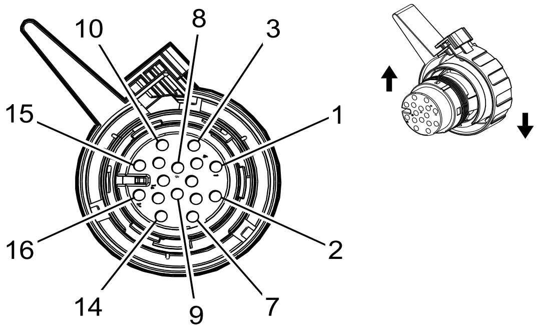
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

T8H Ignition Coil 8

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	BK	151	Signal Ground	I	—
B	0.5	BN/WH	2130	Ignition Control Low Reference Bank 2	I	—
C	0.5	PU/WH	2128	Ignition Control 8	I	—
D	0.8	PK/	1239	Run/Crank Ignition 1 Voltage	I	—

T12 Automatic Transmission Assembly



3277917

Connector Part Information

Harness Type: Engine
OEM Connector: 13878751
Service Connector: 19303772
Description: 16-Way F 1.5 Series, Sealed (BK)

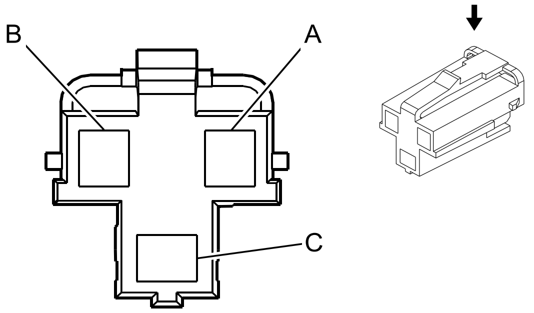
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575434	J-35616-66 (YE)	J-38125-28	2 21 24 47220 0	Yazaki 12	E	1
II	13578934	J-35616-66 (YE)	J-38125-28	2 21 24 47220 0	Yazaki 12	E	1

T12 Automatic Transmission Assembly

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1 - 2	—	—	—	Not Occupied	—	—
3	0.5	OG/BK	1786	Transmission Park/Neutral Signal 1	II	L96/LC8
4	0.35	RD/WH	1840	Battery Positive Voltage	I	—
5	0.8	BK/WH	1551	Signal Ground	II	—
6	0.5	L-BU/WH	6311	Cruise/ETC/TCC Brake Signal	II	L96/LC8
7	—	—	—	Not Occupied	—	—
8	0.5	TN	2501	High Speed GMLAN Serial Data (-) 1	II	—
9	0.5	D-BU/	5985	Accessory Wakeup Serial Data	II	L96/LC8
10	0.5	TN/BK	2500	High Speed GMLAN Serial Data (+) 1	II	—
11	0.5	TN	2501	High Speed GMLAN Serial Data (-) 1	II	—
12	0.5	PK	2139	Run/Crank Ignition 1 Voltage	II	L96/LC8
13	0.5	TN	2501	High Speed GMLAN Serial Data (-) 1	II	—
14	0.5	TN/BK	2500	High Speed GMLAN Serial Data (+) 1	II	—
15	0.5	TN/BK	2500	High Speed GMLAN Serial Data (+) 1	II	—
16	0.5	OG/BK	6399	Replicated TOS Signal	II	—

X80A Accessory Power Receptacle - Center Console 1 (-DT4)



Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12176836
Service Connector: 19257374
Description: 3-Way F 280 Metri-Pack Series (GY)

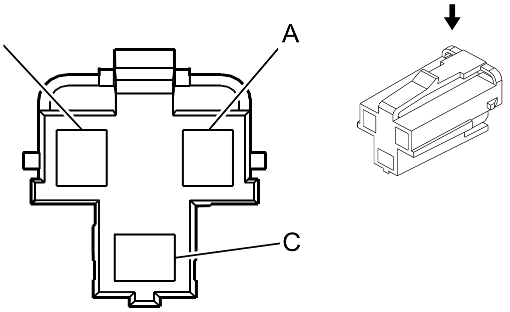
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X80A Accessory Power Receptacle - Center Console 1 (-DT4)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	RD/WH	640	Battery Positive Voltage	I	—
B	—	—	—	Not Occupied	—	—
C	1	BK	550	Ground	I	—

X80B Accessory Power Receptacle - Center Console 2



362748

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12176836
Service Connector: 19257374
Description: 3-Way F 280 Metri-Pack Series (GY)

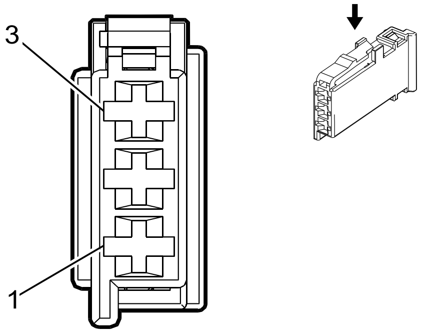
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X80B Accessory Power Receptacle - Center Console 2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	RD/WH	1040	Battery Positive Voltage	I	—
B	—	—	—	Not Occupied	—	—
C	1	BK	550	Ground	I	—

X81 Accessory Power Receptacle - 110V AC X1



2039656

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 10865339
Service Connector: 93186706
Description: 3-Way F 1.6 Micro-Timer Series (BK)

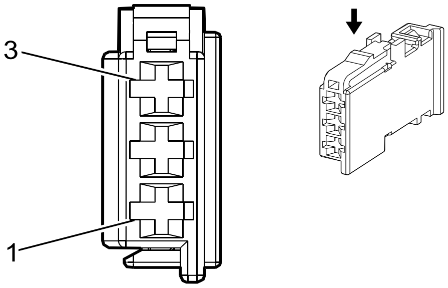
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X81 Accessory Power Receptacle - 110V AC X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5 0.5	BU D-BU/	6807 6807	DC To AC Inverter Control DC To AC Inverter Control	I I	— —
2	—	—	—	Not Occupied	—	—
3	1	BK	5683	120 V AC Phase A	I	—

X81 Accessory Power Receptacle - 110V AC X2



2236412

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13648774
Service Connector: 19367740
Description: 3-Way F 1.6 Timer Series, Sealed (GY)

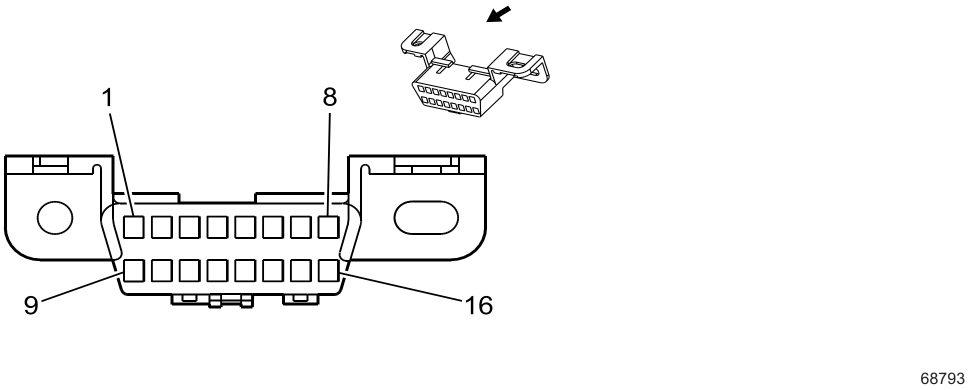
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X81 Accessory Power Receptacle - 110V AC X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	D-GN	2266	DC To AC Inverter Control 2	I	—
2	—	—	—	Not Occupied	—	—
3	1	WH	5685	120 V AC Neutral	I	—

X84 Data Link Connector



Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12110250
Service Connector: 12110250
Description: 16-Way F 150 Metri-Pack Series (BK)

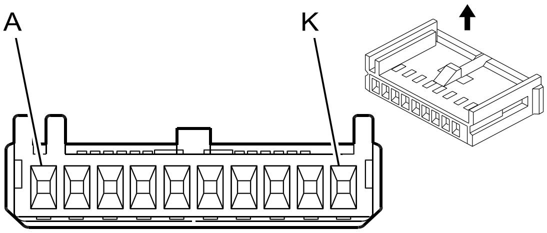
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575724	J-35616-14 (GN)	J-38125-12A	12129484	Delphi 19	E	C
II	13580059	J-35616-14 (GN)	J-38125-12A	12129484	Delphi 19	E	A
III	13580059	J-35616-14 (GN)	J-38125-12A	12129484	Delphi 19	E	C

X84 Data Link Connector

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
2 - 3	—	—	—	Not Occupied	—	—
4	0.5	BK/WH	351	Signal Ground	III	—
5	0.5	BK/WH	351	Signal Ground	III	—
6	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	III	—
7 - 13	—	—	—	Not Occupied	—	—
14	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	III	—
15	—	—	—	Not Occupied	—	—
16	0.8	RD/WH	640	Battery Positive Voltage	II	—

X85 Steering Wheel Air Bag Coil X1



1593397

Connector Part Information

Harness Type: Steering Column
OEM Connector: 15393433
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 Micro-Pack Series (BK)

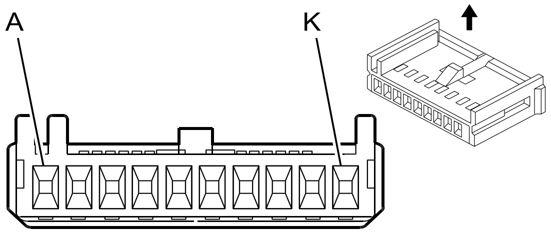
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

X85 Steering Wheel Air Bag Coil X1

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	BK	350	Ground	I	—
B	—	TN	28	Horn Relay Control	I	—
C	—	—	7158	Cruise Control Indicator Dimming Signal	I	—
D - E	—	—	—	Not Occupied	—	—
F	—	PK	1444	12V Reference	I	—
G	—	BN	6136	Control	I	—
H	—	L-GN	6818	Steering Wheel Resistor Ladder Signal 1	I	—
J	—	—	—	Not Occupied	—	—
K	—	GY	1884	Cruise Control Set/Coast/Resume/Accelerate Switch Signal	I	—

X85 Steering Wheel Air Bag Coil X2



1593397

Connector Part Information

Harness Type: Steering Wheel
OEM Connector: 15393433
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 0.64 Micro-Pack Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

X85 Steering Wheel Air Bag Coil X2

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	—	GY	1884	Cruise Control Set/Coast/Resume/Accelerate Switch Signal	I	—
B	—	—	—	Not Occupied	—	—
C	—	L-GN	6818	Steering Wheel Resistor Ladder Signal 1	I	—
D	—	BN	6136	Control	I	—
E	—	PK	1444	12V Reference	I	—
F - G	—	—	—	Not Occupied	—	—
H	—	GN/WH	7158	Cruise Control Indicator Dimming Signal	I	—
J	—	TN	28	Horn Relay Control	I	—
K	—	BK	350	Ground	I	—

X87RB Sliding Door Jamb Contact Plate - Right Body (AU3)

—

Connector Part Information

Harness Type: Sliding Door
OEM Connector: 33148350
Service Connector: Service by Harness - See Part Catalog
Description: —

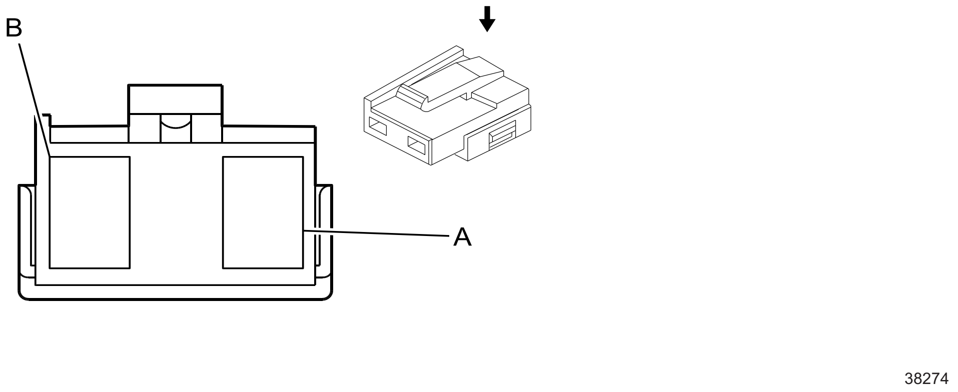
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X87RB Sliding Door Jamb Contact Plate - Right Body (AU3)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	TN	294	Door Lock Actuator Unlock Control	I	—
B	0.8	GY	295	Door Lock Actuator Lock Control	I	—

X87RB Sliding Door Jamb Contact Plate - Right Body (CARGO)



Connector Part Information

Harness Type: Body
OEM Connector: 12034343
Service Connector: 12101821
Description: 2-Way F 280 Metri-Pack Series (BK)

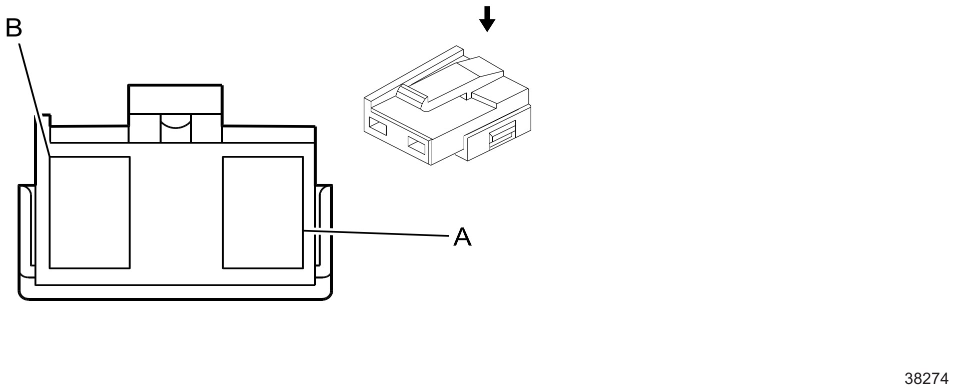
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X87RB Sliding Door Jamb Contact Plate - Right Body (CARGO)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	TN	294	Door Lock Actuator Unlock Control	I	—
B	1	GY	295	Door Lock Actuator Lock Control	I	—

X87RB Sliding Door Jamb Contact Plate - Right Body (CUTAWAY)



Connector Part Information

Harness Type: Body
OEM Connector: 12034343
Service Connector: 12101821
Description: 2-Way F 280 Metri-Pack Series (BK)

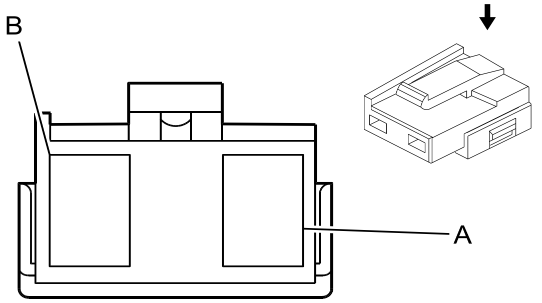
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X87RB Sliding Door Jamb Contact Plate - Right Body (CUTAWAY)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	TN	294	Door Lock Actuator Unlock Control	I	—
B	1	GY	295	Door Lock Actuator Lock Control	I	—

X87RB Sliding Door Jamb Contact Plate - Right Body (PASSENGER)



38274

Connector Part Information

Harness Type: Body
OEM Connector: 12034343
Service Connector: 12101821
Description: 2-Way F 280 Metri-Pack Series (BK)

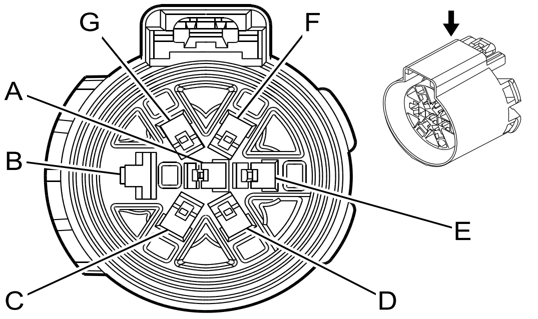
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X87RB Sliding Door Jamb Contact Plate - Right Body (PASSENGER)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.8	TN	294	Door Lock Actuator Unlock Control	I	—
B	1	GY	295	Door Lock Actuator Lock Control	I	—

X88 Trailer Connector (LWN)



2056936

Connector Part Information

- Harness Type: Chassis
- OEM Connector: 13857223
- Service Connector: Service by Harness - See Part Catalog
- Description: 7-Way F 280, 630 Metri-Pack Series, Sealed (BK)

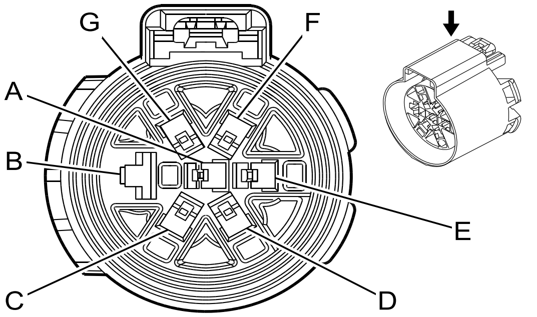
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X88 Trailer Connector (LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	L-GN	1624	Trailer Backup Lamp Control	II	—
B	8	WH	22	Trailer Ground	I	—
C	3	D-BU/	47	Trailer Auxiliary Control	II	—
D	1	D-GN	1619	Right Rear Trailer Stop/Turn Lamp Control	II	—
E	3	RD/BK	742	Battery Positive Voltage	II	—
F	1	BN	2109	Trailer Park Lamp Control	II	—
G	1	YE	1618	Left Rear Trailer Stop/Turn Lamp Control	II	—

X88 Trailer Connector (-LWN)



2056936

Connector Part Information

Harness Type: Chassis
OEM Connector: 13857223
Service Connector: Service by Harness - See Part Catalog
Description: 7-Way F 280, 630 Metri-Pack Series, Sealed (BK)

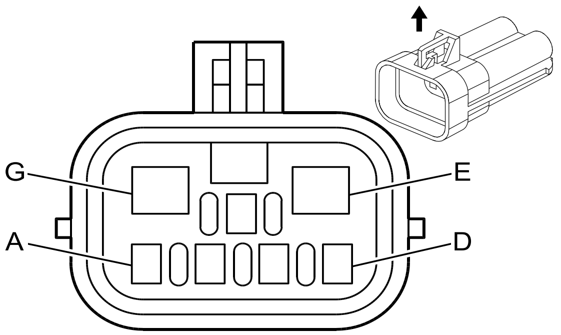
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X88 Trailer Connector (-LWN)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	L-GN	1624	Trailer Backup Lamp Control	II	—
B	8	WH	22	Trailer Ground	I	—
C	3	D-BU/	47	Trailer Auxiliary Control	II	—
D	1	D-GN	1619	Right Rear Trailer Stop/Turn Lamp Control	II	—
E	3	RD/BK	742	Battery Positive Voltage	II	—
F	1	BN	2109	Trailer Park Lamp Control	II	—
G	1	YE	1618	Left Rear Trailer Stop/Turn Lamp Control	II	—

X88 Trailer Connector (NE7)



1372292

Connector Part Information

Harness Type: Chassis
OEM Connector: 12052200
Service Connector: 19299890
Description: 7-Way M 150, 480 Metri-Pack Series, Sealed (BK)

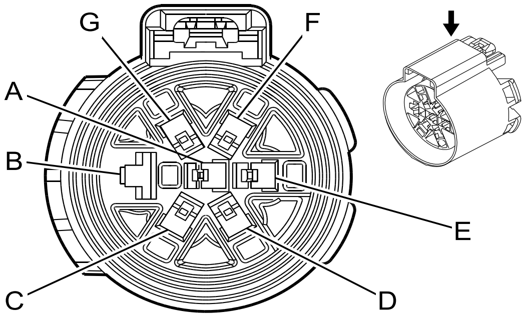
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-41 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X88 Trailer Connector (NE7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	L-GN	1624	Trailer Backup Lamp Control	I	—
B	1	BN	2109	Trailer Park Lamp Control	I	—
C	1	YE	1618	Left Rear Trailer Stop/Turn Lamp Control	I	—
D	—	—	—	Not Occupied	—	—
E	3	D-BU/	47	Trailer Auxiliary Control	II	—
F	1	D-GN	1619	Right Rear Trailer Stop/Turn Lamp Control	I	—
G	3	RD/BK	742	Battery Positive Voltage	II	—

X88 Trailer Connector (-NE7)



2056936

Connector Part Information

Harness Type: Chassis
OEM Connector: 13857223
Service Connector: Service by Harness - See Part Catalog
Description: 7-Way F 280, 630 Metri-Pack Series, Sealed (BK)

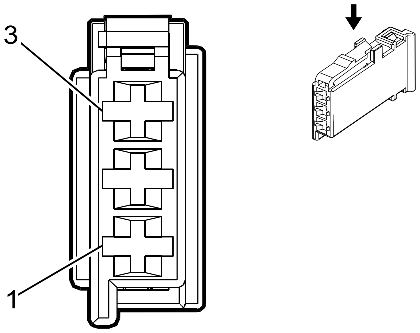
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X88 Trailer Connector (-NE7)

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	1	L-GN	1624	Trailer Backup Lamp Control	II	—
B	8	WH	22	Trailer Ground	I	—
C	3	D-BU/	47	Trailer Auxiliary Control	II	—
D	1	D-GN	1619	Right Rear Trailer Stop/Turn Lamp Control	II	—
E	3	RD/BK	742	Battery Positive Voltage	II	—
F	1	BN	2109	Trailer Park Lamp Control	II	—
G	1	YE	1618	Left Rear Trailer Stop/Turn Lamp Control	II	—

X92 USB Receptacle



2039656

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 10865339
Service Connector: 93186706
Description: 3-Way F 1.6 Micro-Timer Series (BK)

Terminal Part Information

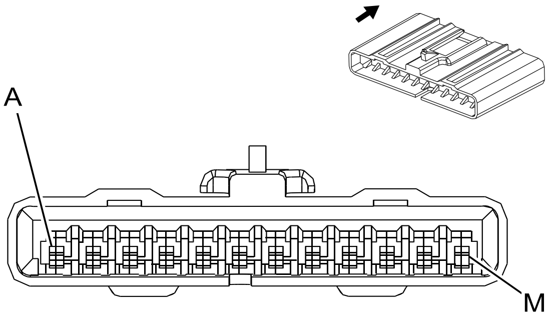
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X92 USB Receptacle

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
1	0.5	BU	6807	DC To AC Inverter Control	I	—
2	—	—	—	Not Occupied	—	—
3	1	BK	5683	120 V AC Phase A	I	—

Splice Pack Connector End Views

JX200 Splice Pack



966355

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12176461
Service Connector: -
Description: 12-Way F 150 GT Series (BK)

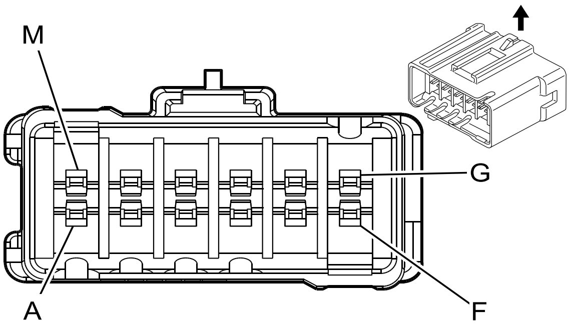
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575479	J-35616-14 (GN)	J-38125-553	12191812	Delphi 19	E	C
II	13575735	J-35616-14 (GN)	J-38125-553	12191812	Delphi 19	E	C

JX200 Splice Pack

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
B	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
C	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
D	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
E	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
F	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
G	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
H	0.35	D-GN	5060	Low Speed GMLAN Serial Data	I	—
J	0.5	L-GN	5060	Low Speed GMLAN Serial Data	II	—
K	0.5	L-GN	5060	Low Speed GMLAN Serial Data	II	—
L	0.5	D-GN	5060	Low Speed GMLAN Serial Data	II	—
M	0.5	D-GN	5060	Low Speed GMLAN Serial Data	II	—

JX250 Splice Pack



803605

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15305288
Service Connector: -
Description: 12-Way F 280 Metri-Pack Series (BK)

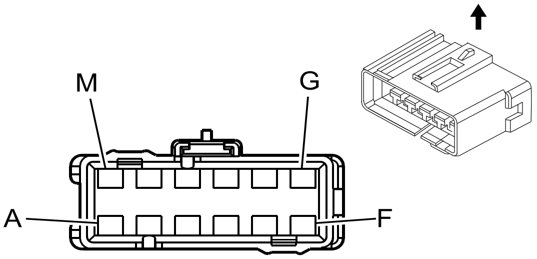
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575721	J-35616-4A (PU)	J-38125-553	12110844	Delphi 4	E	A

JX250 Splice Pack

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
B	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
C	0.5	BU	2500	High Speed GMLAN Serial Data (+) 1	I	—
D - J	—	—	—	Not Occupied	—	—
K	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
L	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—
M	0.5	WH	2501	High Speed GMLAN Serial Data (-) 1	I	—

JX347 Splice Pack



365987

Connector Part Information

Harness Type: Body
OEM Connector: 12191928
Service Connector: -
Description: 12-Way F 280 Metri-Pack Series (BK)

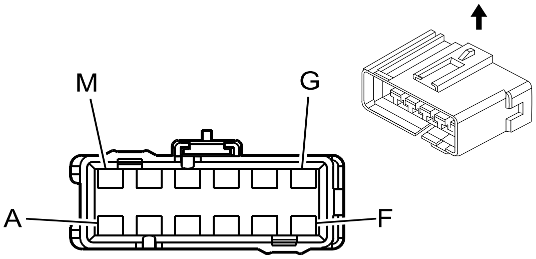
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575721	J-35616-4A (PU)	J-38125-553	12110844	Delphi 4	E	4
II	13575721	J-35616-4A (PU)	J-38125-553	12110844	Delphi 4	E	A
III	13579958	J-35616-4A (PU)	J-38125-11A	15324340	Delphi 19	F	G
IV	19330177	J-35616-4A (PU)	J-38125-11A	15324340	Delphi 19	F	G

JX347 Splice Pack

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK	450	Ground	I	—
B - C	—	—	—	Not Occupied	—	—
D	5	BK	450	Ground	III	—
E	3	BK	450	Ground	IV	—
F	3	BK	450	Ground	IV	—
G	0.5	BK	450	Ground	II	—
H	5	BK	450	Ground	III	—
J	0.5	BK	450	Ground	II	—
K	0.5	BK	450	Ground	II	—
L	—	—	—	Not Occupied	—	—
M	0.35	BK	450	Ground	I	—

JX348 Splice Pack



365987

Connector Part Information

Harness Type: Body
OEM Connector: 12191928
Service Connector: -
Description: 12-Way F 280 Metri-Pack Series (BK)

Terminal Part Information

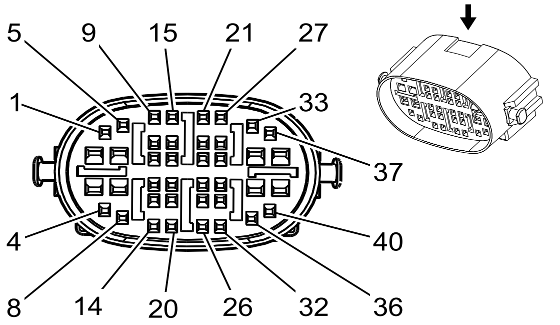
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575721	J-35616-4A (PU)	J-38125-553	12110844	Delphi 4	C	A
II	13575721	J-35616-4A (PU)	J-38125-553	12110844	Delphi 4	E	4
III	13575721	J-35616-4A (PU)	J-38125-553	12110844	Delphi 4	E	A
IV	19330177	J-35616-4A (PU)	J-38125-11A	15324340	Delphi 19	F	G

JX348 Splice Pack

Pin	Size	Color	Circuit	Function	Terminal Type ID	Option
A	0.35	BK	1850	Ground	II	—
B	0.8	BK	1850	Ground	I	—
C	3	BK	1850	Ground	IV	—
D	0.35	BK	1850	Ground	II	—
E	—	—	—	Not Occupied	—	—
F	0.5	BK	1850	Ground	III	—
G	0.5	BK/WH	2751	Signal Ground	III	—
H	—	—	—	Not Occupied	—	—
J	1	BK	1850	Ground	I	—
K - M	—	—	—	Not Occupied	—	—

Inline Harness Connector End Views

X100 Instrument Panel Harness to Engine Harness



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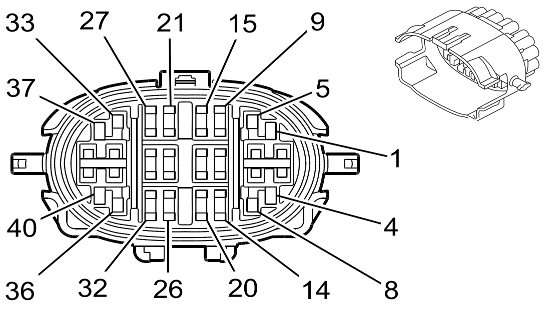


1713503

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13601803
Service Connector: 19166997
Description: 40-Way F 150, 280 GT Series, Sealed (BK)

Connector Part Information

Harness Type: Engine
OEM Connector: 13605375
Service Connector: 19169297
Description: 40-Way M 150, 280 GT Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575396	J-35616-14 (GN)	J-38125-553	15326427	Delphi 5	E	A
II	13575412	J-35616-14 (GN)	J-38125-553	12191819	Delphi 8	2	1
III	13575412	J-35616-14 (GN)	J-38125-553	12191819	Delphi 8	E	1
IV	13576356	J-35616-4A (PU)	J-38125-553	15304719	Delphi 19	2	5
V	13576356	J-35616-4A (PU)	J-38125-553	15304719	Delphi 19	E	5
VI	13576360	J-35616-14 (GN)	J-38125-553	12191819	Delphi 8	E	1
VII	13579782	J-35616-4A (PU)	J-38125-553	15304720	Delphi 19	4	5
VIII	13575443	J-35616-5 (PU)	J-38125-553	15304732	Delphi 8	A	5
IX	13576364	J-35616-3 (GY)	J-38125-553	15326269	Delphi 19	E	1
X	13576364	J-35616-3 (GY)	J-38125-553	15326269	Delphi 19	E	4
XI	13580826	J-35616-5 (PU)	J-38125-553	15304731	Delphi 19	C	5
XII	13580826	J-35616-5 (PU)	J-38125-553	15304731	Delphi 19	E	5
XIII	19368625	J-35616-3 (GY)	J-38125-12A	Not Available	Not Available	Not Available	Not Available

X100 Instrument Panel Harness to Engine Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	WH/D-BU	6311	VI	—	Cruise/ETC/TCC Brake Signal	1	0.5 0.5	L-BU/WH WH/BU	6311 6311	X X	LWN LV1
2	0.8	OG	52	IV	—	High Blower Motor Control	2	0.8	OG	52	XI	—
3	0.8	L-BU/	72	IV	—	Medium 2 Blower Motor Control	3	2	L-BU/	72	VIII	—
4	0.8 0.5	OG OG	1732 1732	II III	PRP -PRP	Electronic Control Unit 12V Reference 3 Electronic Control Unit 12V Reference 3	4	0.5	OG	1732	X	—
5	—	—	—	—	—	Not Occupied	5	—	—	—	—	—
6	0.8	TN	63	IV	—	Medium Blower Motor Control 1	6	0.8	TN	63	XI	—
7	2	BK	1250	VII	—	Ground	7	2	BK	1250	VIII	—
8	0.8	YE	60	II	—	Low Blower Motor Control	8	0.8	YE	60	IX	—
9	0.5	L-GN/BN	507	III	—	Wait To Start Indicator Control	9	0.5	L-GN/BN	507	X	—
10 - 11	—	—	—	—	—	Not Occupied	10 - 11	—	—	—	—	—
12	0.5	L-GN	1478	III	—	Coolant Level Switch Signal	12	0.5	L-GN	1478	X	—
13	0.5	BK/WH	351	III	—	Signal Ground	13	0.5	BK/WH	351	X	—
14	0.5	L-GN	66	III	—	A/C Request Signal	14	0.5	L-GN	66	X	—
15	0.5	WH/D-BU	5986	III	—	Serial Data Communication Enable	15	0.5	WH/D-BU	5986	X	JL4
16	0.5	L-GN	66	III	—	A/C Request Signal	16	0.5	L-GN/WH	66	X	—
17	0.75	L-GN/GY	333	II	—	Brake Fluid Level Sensor Signal	17	0.75	L-GN/GY	333	X	—
18	0.5	BN/WH	419	III	—	Check Engine Indicator Control	18	0.5	BN/WH	419	X	—
19	0.5	D-BU/	5985	III	—	Accessory Wakeup Serial Data	19	0.5	D-BU/	5985	X	—
20	—	—	—	—	—	Not Occupied	20	—	—	—	—	—

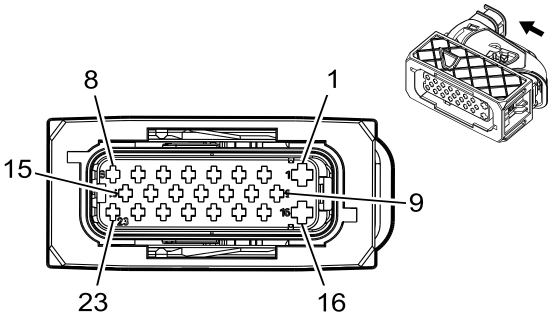
X100 Instrument Panel Harness to Engine Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
21	0.35	BK/D-BU	1271	I	—	Accelerator Pedal Position Low Reference 1	21	0.5 0.5	BK/D-BU BN	1271 1271	XIII XIII	LV1 LWN
22	0.35	WH/RD	1164	I	—	Accelerator Pedal Position 5V Reference 1	22	0.5 0.5	WH/BK WH/RD	1164 1164	XIII XIII	LWN LV1
23	0.35	BN/RD	1274	I	—	Accelerator Pedal Position 5V Reference 2	23	0.5 0.5	TN BN/RD	1274 1274	XIII XIII	LWN LV1
24	0.5	BK/WH	451	III	—	Signal Ground	24	0.75	BK/WH	451	X	—
25	0.5	WH	5075	III	—	Current Sensor Signal	25	0.5	WH	5075	X	—
26	0.5	BN	5077	III	—	Current Sensor Low Reference	26	0.5	BN	5077	X	—
27	0.35	YE/WH	1161	I	—	Accelerator Pedal Position Signal 1	27	0.5 0.5	YE/WH D-BU/	1161 1161	XIII XIII	LV1 LWN
28	0.35	BK/VT	1272	I	—	Accelerator Pedal Position Low Reference 2	28	0.5 0.5	PU/ BK/VT	1272 1272	XIII XIII	LWN LV1
29	0.35	L-GN/WH	1162	I	—	Accelerator Pedal Position Signal 2	29	0.5 0.5	L-BU/ L-GN/WH	1162 1162	XIII XIII	LWN LV1
30	0.5	PK	5076	III	—	Current Sensor Control	30	0.5	PK	5076	X	—
31 - 32	—	—	—	—	—	Not Occupied	31 - 32	—	—	—	—	—
33	0.5	BU	2500	III	—	High Speed GMLAN Serial Data (+) 1	33	0.5	BU	2500	X	—
34	0.5	BK/YE	407	V	LV1/LWN	Sensor Low Reference	34	0.5	BK/YE	407	XII	LV1/LWN
35	0.5	L-GN/BK	735	V	LV1/LWN	Outside Ambient Air Temperature Sensor Signal	35	0.5	L-GN/BK	735	XII	LV1/LWN
36	0.5	BU	2500	III	—	High Speed GMLAN Serial Data (+) 1	36	0.5	BU	2500	X	—
37	0.5	WH	2501	III	—	High Speed GMLAN Serial Data (-) 1	37	0.5	WH	2501	X	—
38 - 39	—	—	—	—	—	Not Occupied	38 - 39	—	—	—	—	—

X100 Instrument Panel Harness to Engine Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
40	0.5	WH	2501	III	—	High Speed GMLAN Serial Data (-) 1	40	0.5	WH	2501	X	—

X101 Engine Harness to Chassis Harness



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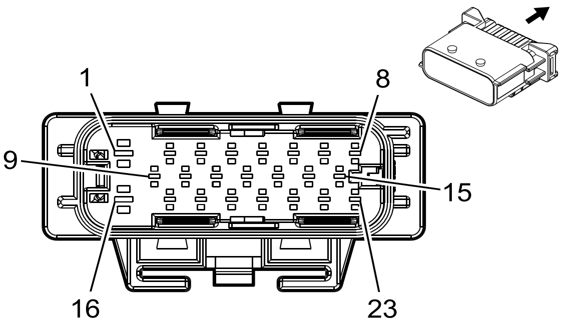


2906943

Connector Part Information

- Harness Type: Engine
- OEM Connector: 13674800
- Service Connector: 19300480
- Description: 23-Way F 1.5 DSQ, 2.8 ATS Series, Sealed (BK)

Connector Part Information

- Harness Type: Chassis
- OEM Connector: 13674783
- Service Connector: 19303858
- Description: 23-Way M 1.5 DSQ, 2.8 ATS Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13576369	J-35616-14 (GN)	J-38125-557	Not Available	Not Available	Not Available	Not Available
II	13580830	J-35616-35 (VT)	J-38125-36	Not Available	Not Available	Not Available	Not Available
III	Not Available	No Tool Required	J-38125-215A	Not Available	Not Available	Not Available	Not Available
IV	13575380	J-35616-3 (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available
V	Not Available	No Tool Required	J-38125-215A	Not Available	Not Available	Not Available	Not Available

X101 Engine Harness to Chassis Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	0.5 0.5 0.5	TN/BK BU BU	2500 2500 2500	I I I	L20/L96 LV1+M5U M5U +LWN	High Speed GMLAN Serial Data (+) 1 High Speed GMLAN Serial Data (+) 1 High Speed GMLAN Serial Data (+) 1	2	0.5	BU	2500	IV	—

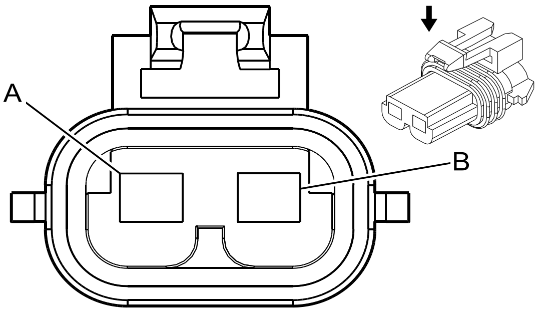
X101 Engine Harness to Chassis Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
3	0.5 0.5	TN WH	2501 2501	I I	L20/L96 LV1+M5U	High Speed GMLAN Serial Data (-) 1 High Speed GMLAN Serial Data (-) 1	3	0.5	WH	2501	IV	—
4	0.5	YE	2375	I	—	Left Rear Corner Object Sensor Signal	4	0.5	YE	2375	IV	—
5	0.5	YE/D-BU	2376	I	—	Left Rear Middle Object Sensor Signal	5	0.5	YE/D-BU	2376	IV	—
6	0.5	D-GN/WH	817	I	—	Vehicle Speed Signal	6	0.5	D-GN/WH	817	IV	—
7	0.5	BK/GY	2379	I	—	Object Sensor Low Reference	7	0.5	BK/GY	2379	IV	—
8	0.5 0.5	D-GN/WH L-GN/GY	465 465	I I	L96/LC8 LV1	Fuel Pump Primary Relay Control Fuel Pump Primary Relay Control	8	0.5	L-GN/GY	465	IV	LV1/L96/LC8-LWN
9	0.5 0.5	PU/ BU/VT	1589 1589	I I	LC8/L96 LV1	Primary Fuel Level Sensor Signal Primary Fuel Level Sensor Signal	9	0.5	BU/VT	1589	IV	LV1/L96/LC8-LWN
10	0.5	YE/WH	2377	I	—	Right Rear Middle Object Sensor Signal	10	0.5	YE/WH	2377	IV	—
11	—	WH/BK	1579	III	—	Fuel Temperature/Composition Signal	11	—	WH	1579	V	—
12	0.5	WH	1310	I	—	EVAP Canister Vent Solenoid Control	12	0.5	WH	1310	IV	—
13	—	BK/WH	1551	III	—	Signal Ground	13	—	BK/WH	1551	V	—
14	0.5	BN/WH	2374	I	—	Object Sensor Control	14	0.5	BN/WH	2374	IV	—
15	0.5	YE/VT	2378	I	—	Right Rear Corner Object Sensor Signal	15	0.5	YE/VT	2378	IV	—

X101 Engine Harness to Chassis Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
16	0.5	D-BU	5985	II	-LWN	Accessory Wakeup Serial Data	16	—	—	—	—	—
17	0.5 0.5	TN BK/BN	2759 2759	I I	LC8/L96 LV1	Fuel Tank Pressure Sensor Low Reference Fuel Tank Pressure Sensor Low Reference	17	0.5	BK/BN	2759	IV	LV1/L96/LC8-LWN
18	0.5 0.5	GY YE/RD	2709 2709	I I	L96/LC8 LV1	Fuel Tank Pressure Sensor 5V Reference Fuel Tank Pressure Sensor 5V Reference	18	0.5	YE/RD	2709	IV	LV1/L96/LC8-LWN
19	—	—	—	—	—	Not Occupied	19	—	—	—	—	—
20	0.5	WH/D-BU	5986	I	—	Serial Data Communication Enable	20	0.5	WH/D-BU	5986	IV	—
21	0.5 0.5	D-GN/ BU/WH	890 890	I I	L96/LC8 LV1	Fuel Tank Pressure Sensor Signal Fuel Tank Pressure Sensor Signal	21	0.5	BU/WH	890	IV	LV1/L96/LC8-LWN
22	0.5	BU	2500	I	—	High Speed GMLAN Serial Data (+) 1	22	0.5	BU	2500	IV	—
23	0.5	WH	2501	I	—	High Speed GMLAN Serial Data (-) 1	23	0.5	WH	2501	IV	—

X104 Instrument Panel Harness to Front Impact Sensor Jumper Harness



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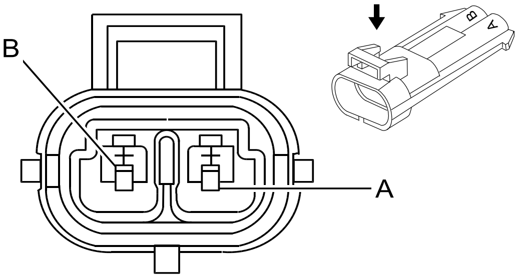


879383

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12077900
Service Connector: 12116247
Description: 2-Way F 280 Metri-Pack Series, Sealed (BK)

Connector Part Information

Harness Type: Inflatable Restraint
OEM Connector: 15317807
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 280 Metri-Pack Series (BK)

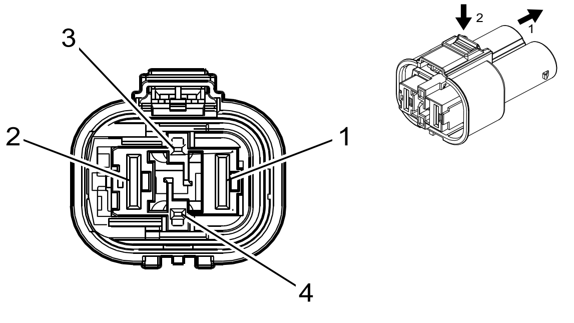
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X104 Instrument Panel Harness to Front Impact Sensor Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	D-BU/WH	6619	I	—	Middle Front Discriminating Sensor Low Reference	A	0.5	D-BU/WH	6619	II	—
B	0.5	BN/WH	6618	I	—	Middle Front Discriminating Sensor Signal	B	0.5	BN/WH	6618	II	—

X108 Positive Battery Cable Harness to Engine Harness



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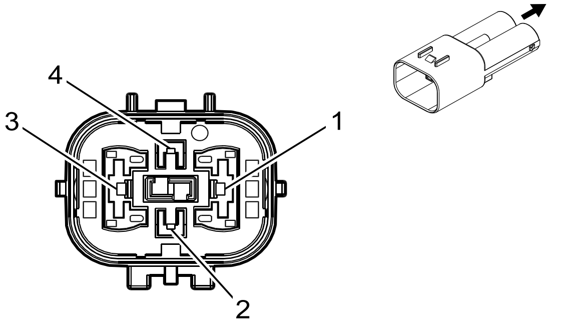


4694999

Connector Part Information

Harness Type: Positive Battery Cable
OEM Connector: 33389553
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 1.2, 9.5 MCON Series (BK)

Connector Part Information

Harness Type: Engine
OEM Connector: 33379229
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M 1.2, 9.5 MCON Series (BK)

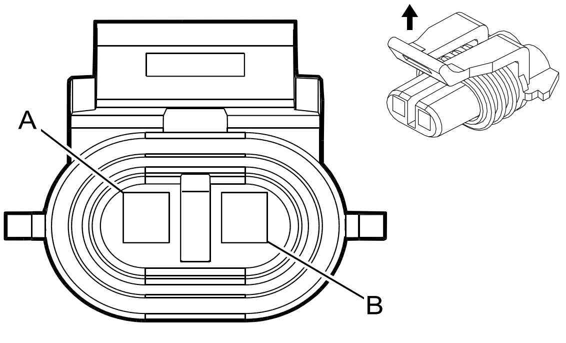
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-22 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-21 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X108 Positive Battery Cable Harness to Engine Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	10	RD/ YE	2	I	—	Battery Positive Voltage	1	6	RD/ YE	2	II	—
2	10	RD/ YE	2	I	—	Battery Positive Voltage	2	10	RD/ BK	2	II	—
3 - 4	—	—	—	—	—	Not Occupied	3 - 4	—	—	—	—	—

X109 Engine Harness to Underhood Lamp Harness



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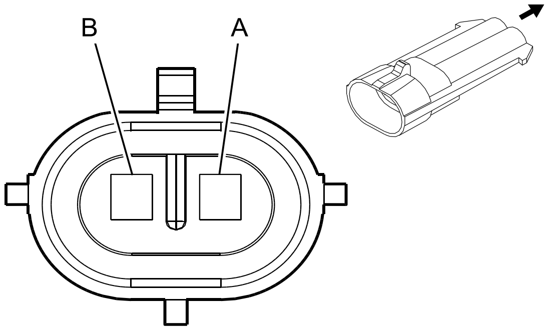


333041

Connector Part Information

Harness Type: Engine
OEM Connector: 12052641
Service Connector: 13586114
Description: 2-Way F 150 Metri-Pack Series (BK)

Connector Part Information

Harness Type: Underhood Lamp
OEM Connector: 12162000
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 150 Metri-Pack Series (BK)

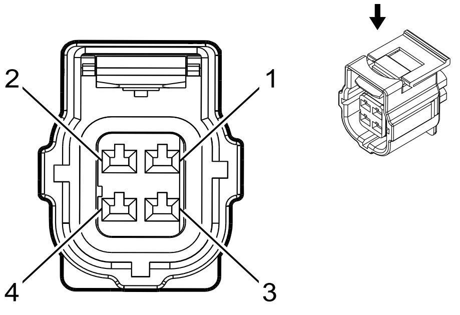
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X109 Engine Harness to Underhood Lamp Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	OG	1732	I	—	Electronic Control Unit 12V Reference 3	A	0.5	OG	1732	II	—
B	0.8	BK	1250	I	—	Ground	B	0.5	BK	1250	II	—

X111 Engine Harness to Glow Plug Jumper Harness



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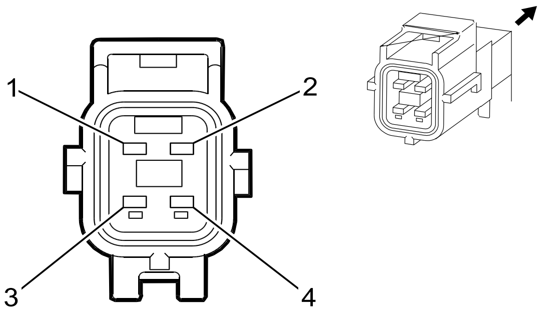


1243485

Connector Part Information

Harness Type: Engine
OEM Connector: 33225173
Service Connector: 13513071
Description: 4-Way F SSC Series (BK)

Connector Part Information

Harness Type: Glow Plug Jumper
OEM Connector: 184346-1
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M Sealed Sensor Connector System (BK)

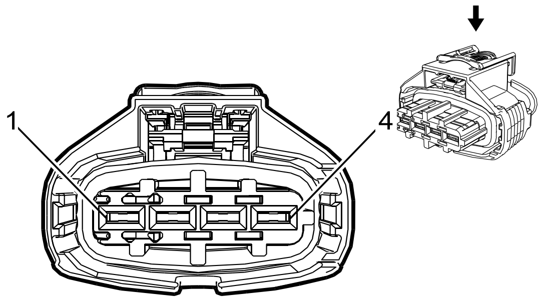
Terminal Part Information

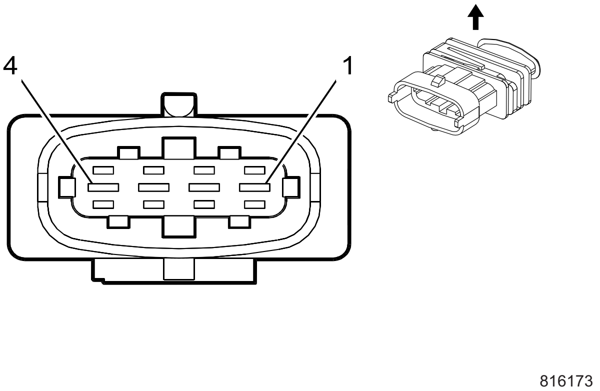
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-64B (LT BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-34 (YE)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X111 Engine Harness to Glow Plug Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2	GY/ D-BU	1581	I	—	Glow Plug Control 1	1	2.5	GY/ D-BU	1581	II	—
2	2	GY/ BN	1582	I	—	Glow Plug Control 2	2	2.5	GY/ BN	1582	II	—
3	2	GY/L-GN	1583	I	—	Glow Plug Control 3	3	2.5	GY/L-GN	1583	II	—
4	2	GY/ YE	1584	I	—	Glow Plug Control 4	4	2.5	GY/ YE	1584	II	—

X112 Engine Harness to Fuel Rail Jumper Harness





Connector Part Information

Harness Type: Engine
OEM Connector: 13931683
Service Connector: 13584423
Description: 4-Way F 2.8 Series, Sealed (BK)

Connector Part Information

Harness Type: Fuel Rail Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way M

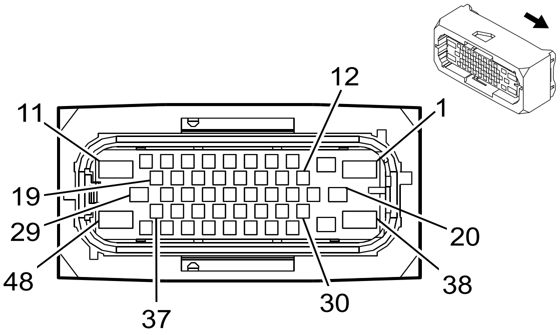
Terminal Part Information

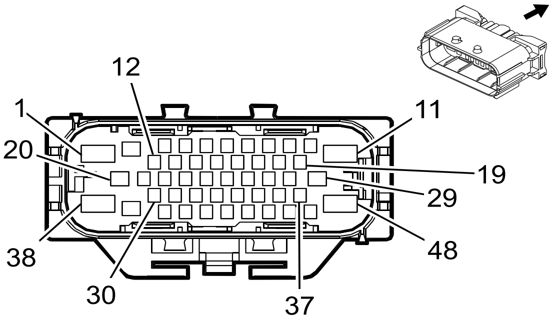
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-35 (VT)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

X112 Engine Harness to Fuel Rail Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BK/L-GN	469	I	—	Manifold Absolute Pressure Sensor Low Reference	1	0.5	BK/L-GN	469	II	—
2	0.5	BN	9348	I	—	Induction Air Temperature Sensor 3 Signal	2	0.5	BN	9348	II	—
3	0.5	GY/RD	2704	I	—	Manifold Absolute Pressure Sensor 5V Reference	3	0.5	GY/RD	2704	II	—
4	0.5	L-GN/WH	432	I	—	Manifold Absolute Pressure Sensor Signal	4	0.5	L-GN/WH	432	II	—

X116 Engine Harness to Chassis Harness





Connector Part Information

Harness Type: Engine

OEM Connector: 15509585

Service Connector: 19329744

Description: 48-Way F 1.5 MCP, 2.8 JPT, 6.3 MCP Series, Sealed (BK)

Connector Part Information

Harness Type: Chassis

OEM Connector: 15513438

Service Connector: 19356277

Description: 48-Way M 1.6, 2.8, 5.8 Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13580829	J-35616-4A (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
II	13580830	J-35616-35 (VT)	J-38125-36	Not Available	Not Available	Not Available	Not Available
III	13580830	J-35616-4A (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
IV	19301757	J-35616-40 (BU)	J-38125-556	1241408-1	Lear 28	A	B
V	19301775	J-35616-40 (BU)	J-38125-556	1241408-1	Lear 28	C	A
VI	19301776	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
VII	19329757	J-35616-14 (GN)	J-38125-215A	Not Available	Not Available	Not Available	Not Available
VIII	13575380	J-35616-3 (GY)	J-38125-560	Not Available	Not Available	Not Available	Not Available
IX	13578827	J-35616-5 (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
X	13580827	J-35616-5 (PU)	J-38125-36	Not Available	Not Available	Not Available	Not Available
XI	19329756	J-35616-32 (OR)	J-38125-36	Not Available	Not Available	Not Available	Not Available

X116 Engine Harness to Chassis Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	2.5	D-BU	3921	I	—	DEF Heater Supply 1	2	2.5	BU	3921	IX	—

X116 Engine Harness to Chassis Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
3	0.5	L-GN/D-BU	3889	VI	—	DEF Power Module Relay Control	3	0.5	L-GN/D-BU	3889	VIII	—
4	0.5	GN	2377	VI	—	Right Rear Middle Object Sensor Signal	4	0.5	YE/WH	2377	VIII	—
5	0.5	BU	2500	VI	—	High Speed GMLAN Serial Data (+) 1	5	0.5	BU	2500	VIII	—
6	0.5	WH	2501	VI	—	High Speed GMLAN Serial Data (-) 1	6	0.5	WH	2501	VIII	—
7	0.5	WH/RD	6054	VI	—	Exhaust Pressure Sensor 5V Reference 1	7	0.5	WH/RD	6054	VIII	—
8	0.5	BK/YE	6055	VI	—	Exhaust Pressure Sensor Low Reference 1	8	0.5	BK/YE	6055	VIII	—
9	0.5	BK/L-GN	6281	VII	—	Fuel Level Sensor Low Reference	9	0.5	BK/L-GN	6281	VIII	—
10	0.5	BU/VT	1589	VII	—	Primary Fuel Level Sensor Signal	10	0.5	BU/VT	1589	VIII	—
11	1	GY	3672	V	—	NOx Sensor 2 Control	11	1	GY	3672	XI	—
12	—	—	—	—	—	Not Occupied	12	—	—	—	—	—
13	0.5	BN/WH	7073	VII	—	Sensor Fuel Temperature 1 Low Reference	13	0.5	BN/WH	7073	VIII	—
14	0.5	BN/GY	7072	VII	—	Sensor Fuel Temperature 1 Signal	14	0.5	BN/GY	7072	VIII	—
15	0.5	BU	2374	VI	—	Object Sensor Control	15	0.5	BN/WH	2374	VIII	—
16	0.5	YE	2375	VI	—	Left Rear Corner Object Sensor Signal	16	0.5	YE	2375	VIII	—
17	0.5	OG	2376	VI	—	Left Rear Middle Object Sensor Signal	17	0.5	YE/D-BU	2376	VIII	—
18 - 19	—	—	—	—	—	Not Occupied	18 - 19	—	—	—	—	—

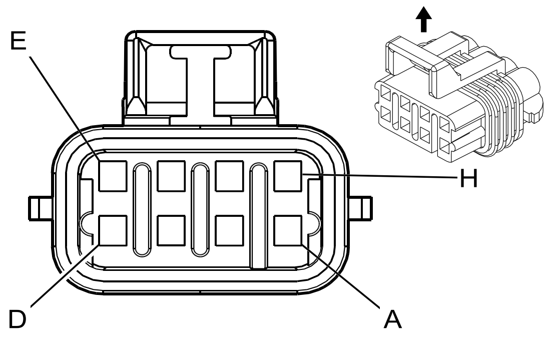
X116 Engine Harness to Chassis Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
20	0.5	D-BU	6053	II	—	Exhaust Pressure Sensor Signal 1	20	0.5	D-BU	6053	X	—
21	0.5	BU/ YE	6861	VII	—	Water In Fuel Sensor Signal	21	0.5	BU/ YE	6861	VIII	—
22 - 23	—	—	—	—	—	Not Occupied	22 - 23	—	—	—	—	—
24	0.5	GY/ BN	7065	VI	—	Wheel Speed Sensor Control Right Front	24	0.5	GY/ BN	7065	VIII	—
25	0.5	YE	872	VI	—	Wheel Speed Sensor Signal Right Front	25	0.5	YE	872	VIII	—
26	0.5	VT	2378	VI	—	Right Rear Corner Object Sensor Signal	26	0.5	YE/ VT	2378	VIII	—
27	—	—	—	—	—	Not Occupied	27	—	—	—	—	—
28	0.5	VT/ YE	5985	VI	—	Accessory Wakeup Serial Data	28	0.5	VT/ YE	5985	VIII	—
29	1	BK	150	III	LWN	Ground	29	1	BK	150	X	LWN
30	0.5	D-BU/ GY	3660	VI	—	Exhaust Gas Temperature Sensor 5 Signal	30	0.5	D-BU/ GY	3660	VIII	—
31	0.5	BK/ VT	3661	VI	—	Exhaust Gas Temperature Sensor 5 Low Reference	31	0.5	BK/ VT	3661	VIII	—
32	0.5	D-BU/ BK	7493	VI	—	High Speed GMLAN Serial Data (+)3	32	0.5	D-BU/ BK	7493	VIII	—
33	0.5	WH	7494	VI	—	High Speed GMLAN Serial Data (-)3	33	0.5	WH	7494	VIII	—
34 - 35	—	—	—	—	—	Not Occupied	34 - 35	—	—	—	—	—
36	0.5	L-BU	5986	VI	—	Serial Data Communication Enable	36	0.5	WH/ D-BU	5986	VIII	—
37	0.5	GY	2379	VI	—	Object Sensor Low Reference	37	0.5	BK/ GY	2379	VIII	—
38	—	—	—	—	—	Not Occupied	38	—	—	—	—	—

X116 Engine Harness to Chassis Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
39	0.5	BU	2500	II	—	High Speed GMLAN Serial Data (+) 1	39	0.5	BU	2500	X	—
40	0.5	WH	2501	VI	—	High Speed GMLAN Serial Data (-) 1	40	0.5	WH	2501	VIII	—
41	0.5	BK/L-GN	3657	VI	—	Exhaust Gas Temperature Sensor 3 Low Reference	41	0.5	BK/L-GN	3657	VIII	—
42	0.5	GY/L-GN	5378	VI	—	Exhaust Gas Temperature Sensor 3	42	0.5	GY/L-GN	5378	VIII	—
43	0.5	VT/BN	3658	VI	—	Exhaust Gas Temperature Sensor 4 Signal	43	0.5	VT/BN	3658	VIII	—
44	0.5	BK/GY	3659	VI	—	Exhaust Gas Temperature Sensor 4 Low Reference	44	0.5	BK/GY	3659	VIII	—
45	—	—	—	—	—	Not Occupied	45	—	—	—	—	—
46	0.75	BN/D-BU	2926	VI	—	Hydrocarbon Injector High Control	46	0.75	BN/D-BU	2926	VIII	—
47	0.75	VT/BN	2927	VI	—	Hydrocarbon Injector Low Control	47	0.75	VT/BN	2927	VIII	—
48	2.5	VT/L-GN	355	IV	—	Fuel Filter Heater Voltage	48	2.5	VT/L-GN	355	XI	—

X126 Engine Harness to Ignition Coil Harness



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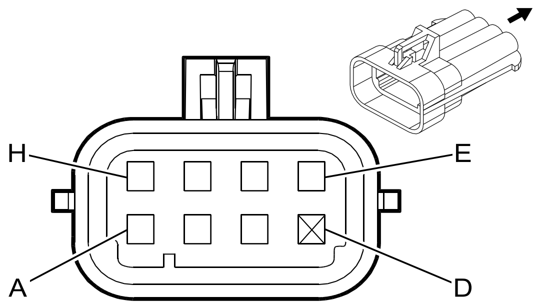


2582274

Connector Part Information

Harness Type: Engine
OEM Connector: 12047938
Service Connector: 13580883
Description: 8-Way F 150 Metri-Pack Series, Sealed (L-GY)

Connector Part Information

Harness Type: Ignition Coil
OEM Connector: 15496016
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M 150 Metri-Pack Series (GY)

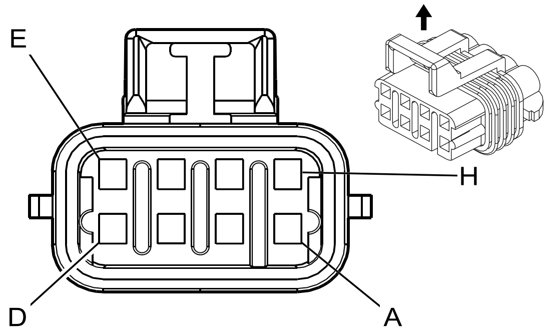
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X126 Engine Harness to Ignition Coil Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	1	BK	1250	I	—	Ground	A	0.8	BK	151	II	—
B	0.8	OG	2127	I	—	Ignition Control 7	B	0.5	RD	2127	II	—
C	0.8	D-GN	2125	I	—	Ignition Control 5	C	0.5	D-GN	2125	II	—
D	—	—	—	—	—	Not Occupied	D	—	—	—	—	—
E	0.8	BN	2129	I	—	Ignition Control Low Reference Bank 1	E	0.5	BN	2129	II	—
F	0.8	L-BU	2123	I	—	Ignition Control 3	F	0.5	L-BU	2123	II	—
G	0.8	PU/	2121	I	—	Ignition Control 1	G	0.5	PU/	2121	II	—
H	1	PK	1039	I	—	Run/Crank Ignition 1 Voltage	H	0.8	PK/	1039	II	—

X127 Engine Harness to Ignition Coil Harness



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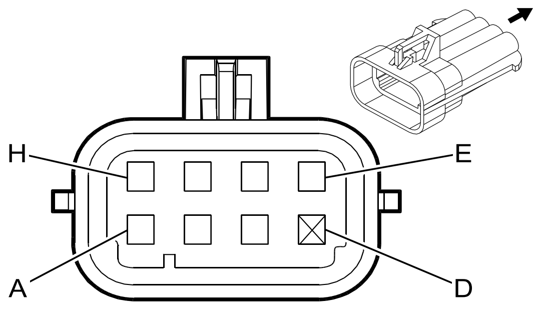


2582274

Connector Part Information

Harness Type: Engine
OEM Connector: 12047938
Service Connector: 13580883
Description: 8-Way F 150 Metri-Pack Series, Sealed (L-GY)

Connector Part Information

Harness Type: Ignition Coil
OEM Connector: 15496016
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M 150 Metri-Pack Series (GY)

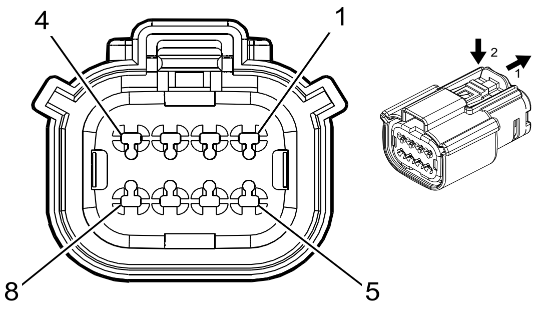
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X127 Engine Harness to Ignition Coil Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	1	BK	1250	I	—	Ground	A	0.8	BK	151	II	—
B	0.8	OG/WH	2122	I	—	Ignition Control 2	B	0.5	OG/WH	2122	II	—
C	0.8	D-GN/WH	2124	I	—	Ignition Control 4	C	0.5	D-GN/WH	2124	II	—
D	—	—	—	—	—	Not Occupied	D	—	—	—	—	—
E	0.8	BN/WH	2130	I	—	Ignition Control Low Reference Bank 2	E	0.5	BN/WH	2130	II	—
F	0.8	L-BU/WH	2126	I	—	Ignition Control 6	F	0.5	L-BU/WH	2126	II	—
G	0.8	PU/WH	2128	I	—	Ignition Control 8	G	0.5	PU/WH	2128	II	—
H	1	PK	1239	I	—	Run/Crank Ignition 1 Voltage	H	0.8	PK/	1239	II	—

X130 Engine Harness to Camshaft Position Sensor Jumper Harness



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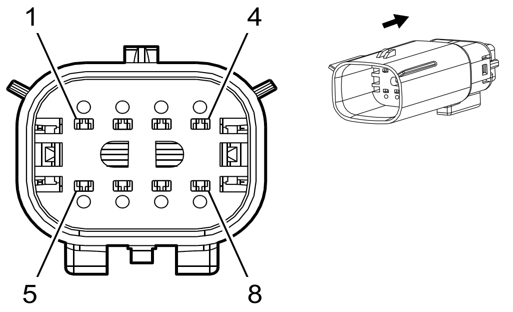


2667653

Connector Part Information

Harness Type: Engine
OEM Connector: 35063116
Service Connector: 19366859
Description: 8-Way F 150 MX Series, Sealed (BK)

Connector Part Information

Harness Type: Camshaft Position Sensor Jumper
OEM Connector: 13520589
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

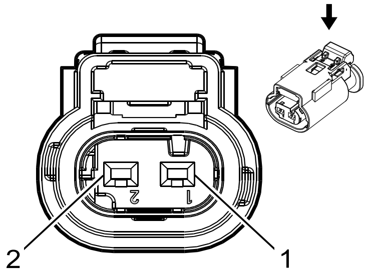
X130 Engine Harness to Camshaft Position Sensor Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	GY/D-BU	5300	I	—	Camshaft Position Intake Sensor Control 1	1	0.5	GY/D-BU	5300	II	—
2	0.5	BK/L-GN	5301	I	—	Camshaft Position Intake Sensor Low Reference 1	2	0.5	BK/L-GN	5301	II	—
3	0.5	YE/VT	5275	I	—	Camshaft Position Intake Sensor 1	3	0.5	YE/VT	5275	II	—
4	0.5	D-BU/BK	179	I	—	Oil Pump Command Signal	4	0.5	BU	179	II	—
5	0.5	VT/BN	5284	I	—	Camshaft Phaser Intake Solenoid 1	5	0.5	VT/BN	5284	II	—
6	0.5	BK/BN	6753	I	—	Cam Phaser W Low Reference	6	0.5	BK/BN	6753	II	—

X130 Engine Harness to Camshaft Position Sensor Jumper Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	0.5	VT/D-BU	5293	I	—	Powertrain Main Relay Fused Supply 4	7	0.5	VT/D-BU	5293	II	—
8	—	—	—	—	—	Not Occupied	8	—	—	—	—	—

X135 Camshaft Position Sensor Jumper Harness to Oil Control Solenoid Valve Jumper Harness



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2717066

Connector Part Information

Harness Type: Camshaft Position Sensor Jumper
OEM Connector: 13735326
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 1.2 Multilock Series, Sealed (BK)

Connector Part Information

Harness Type: Oil Control Solenoid Valve
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M

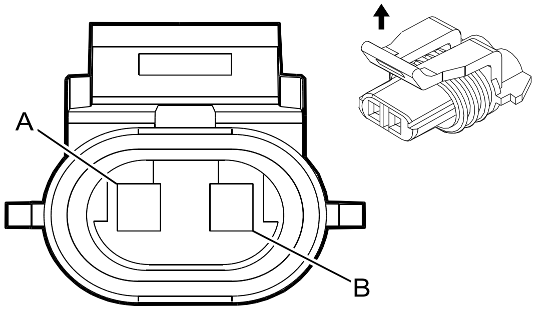
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-17 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X135 Camshaft Position Sensor Jumper Harness to Oil Control Solenoid Valve Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	VT/D-BU	5293	I	—	Powertrain Main Relay Fused Supply 4	1	0.5	VT/D-BU	5293	II	—
2	0.5	BU	179	I	—	Oil Pump Command Signal	2	0.5	BU	179	II	—

X141 Instrument Panel Harness to Brake Fluid Level Jumper Harness



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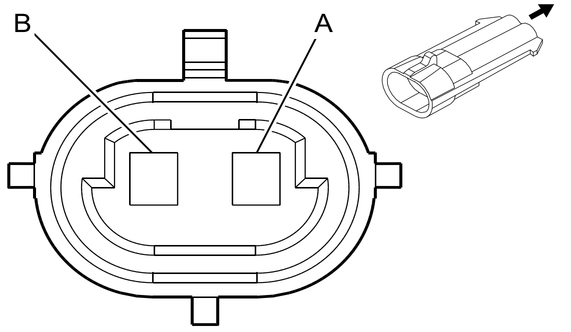


605500

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12052644
Service Connector: 19368034
Description: 2-Way F 150 Metri-Pack Series, Sealed (GY)

Connector Part Information

Harness Type: Brake Fluid Level Switch
OEM Connector: 12162343
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 150 Metri-Pack Series (GY)

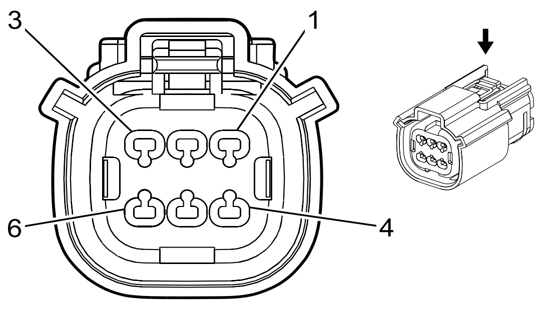
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X141 Instrument Panel Harness to Brake Fluid Level Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	TN/ WH	33	I	—	Brake Warning Indicator Control	A	0.5	TN/ WH	33	II	—
B	0.5	BK/ WH	351	I	—	Signal Ground	B	0.5	BK/ WH	351	II	—

X142 Engine Harness to Cooling Fan Jumper Harness



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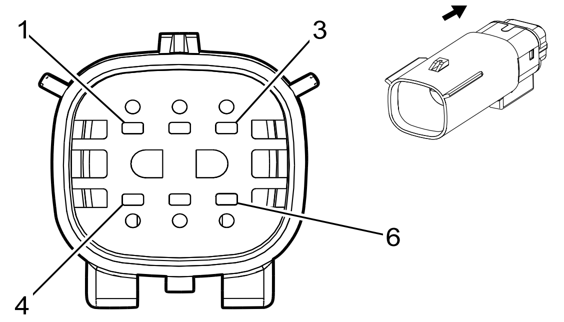


1986159

Connector Part Information

Harness Type: Engine
OEM Connector: 13609714
Service Connector: 13578533
Description: 6-Way F 150 MX Series, Sealed (BK)

Connector Part Information

Harness Type: Cooling Fan Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way M

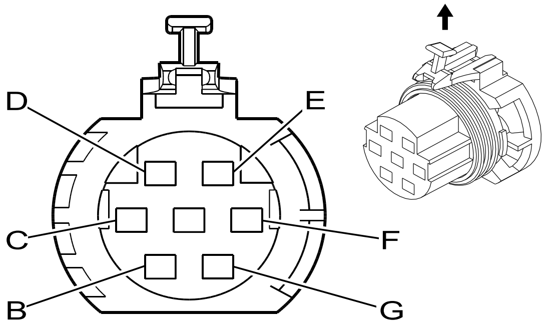
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X142 Engine Harness to Cooling Fan Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	0.5	WH	2368	I	—	Cooling Fan Control Signal	2	0.5	WH	2368	II	—
3	0.5	GY/ RD	2365	I	—	Cooling Fan Speed 5V Reference	3	0.5	GY/ RD	2365	II	—
4	0.5	BU/ VT	2364	I	—	Cooling Fan Speed Signal	4	0.5	BU/ VT	2364	II	—
5	0.5	BK/ BN	6141	I	—	Cooling Fan Speed Low Reference	5	0.5	BK/ BN	6141	II	—
6	0.75	BK	550	I	—	Ground	6	0.75	BK	550	II	—

X150 Instrument Panel Harness to Forward Lamp Harness



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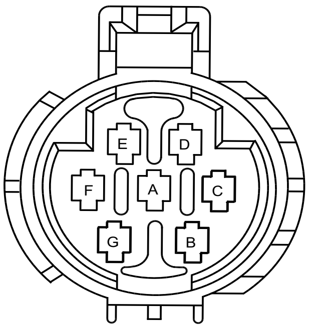


258231

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12110751
Service Connector: 12110751
Description: 7-Way F 280 Metri-Pack Flexlock Series, Sealed (BK)

Connector Part Information

Harness Type: Forward Lamp
OEM Connector: 12110753
Service Connector: 12110753
Description: 7-Way M 280 Metri-Pack Series, Sealed (BK)

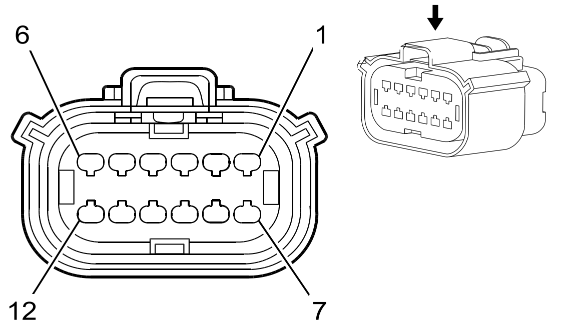
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X150 Instrument Panel Harness to Forward Lamp Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	PK/ BK	109	I	BTV	Hood Ajar Switch Signal	A	0.5	PK/ BK	109	II	BTV
B	0.5	PU/	5531	I	BTV	Hood Closed Switch Signal	B	0.5	BK/ BN	5531	II	BTV
C	0.5	BU/ GY	636	I	UFA	Outside Ambient Air Temperature Sensor Signal	C	0.5	BU/ GY	636	II	UFA
D	0.5	BK/D-BU	61	I	UFA	Outside Ambient Temperature Sensor Low Reference	D	0.5	BK/D-BU	61	II	UFA
E	0.5	BK/ YE	407	I	—	Sensor Low Reference	E	0.5	BK/ YE	407	II	—
F	0.5	L-GN/ BK	735	I	—	Outside Ambient Air Temperature Sensor Signal	F	0.5	L-GN/ BK	735	II	—
G	—	—	—	—	—	Not Occupied	G	—	—	—	—	—

X160 Engine Harness to Fuel Injector Jumper Harness



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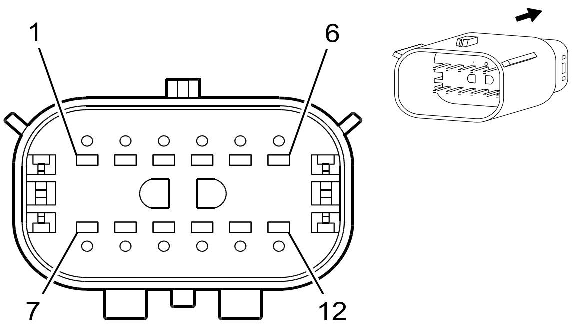


1825167

Connector Part Information

Harness Type: Engine
OEM Connector: 13609715
Service Connector: 19178148
Description: 12-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Fuel Injector Jumper
OEM Connector: 33482-6216
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13578813	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
II	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

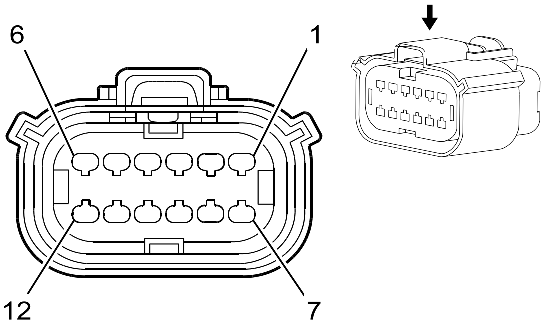
X160 Engine Harness to Fuel Injector Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	0.75	BN/WH	4901	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 1	2	0.75	BN/WH	4901	II	—
3	0.75	L-GN/GY	4903	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 3	3	0.75	L-GN/GY	4903	II	—
4	0.75	L-GN/WH	4905	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 5	4	0.75	L-GN/WH	4905	II	—
5	0.75	BN	4801	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 1	5	0.75	BN	4801	II	—
6 - 7	—	—	—	—	—	Not Occupied	6 - 7	—	—	—	—	—

X160 Engine Harness to Fuel Injector Jumper Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8	0.75	L-GN	4803	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 3	8	0.75	L-GN	4803	II	—
9	0.75	WH/ L-GN	4805	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 5	9	0.75	WH/ L-GN	4805	II	—
10	0.5	BN/ RD	2917	I	—	Fuel Rail Pressure Sensor 5V Reference	10	0.5	BN/ RD	2917	II	—
11	0.5	D-BU/ WH	2918	I	—	Fuel Rail Pressure Sensor Signal	11	0.5	BU/ WH	2918	II	—
12	0.5	BK/L-GN	2919	I	—	Fuel Rail Pressure Sensor Low Reference	12	0.5	BK/L-GN	2919	II	—

X161 Engine Harness to Fuel Injector Jumper Harness



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1825165

Connector Part Information

Harness Type: Engine
OEM Connector: 13863397
Service Connector: 19329931
Description: 12-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Fuel Injector Jumper
OEM Connector: 33482-6221
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13578813	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
II	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

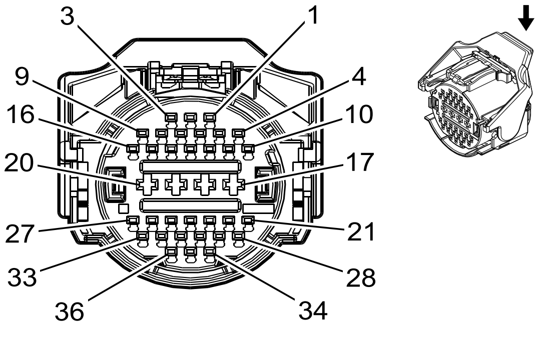
X161 Engine Harness to Fuel Injector Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	—	—	—	Not Occupied	1	—	—	—	—	—
2	0.75	D-BU/GY	4902	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 2	2	0.75	BU/GY	4902	II	—
3	0.75	BU/WH	4904	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 4	3	0.75	D-BU/WH	4904	II	—
4	0.75	VT/GY	4906	I	—	Direct Fuel Injector (DFI) High Voltage Supply Cylinder 6	4	0.75	VT/GY	4906	II	—
5	0.75	BU	4802	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 2	5	0.75	D-BU/	4802	II	—
6 - 7	—	—	—	—	—	Not Occupied	6 - 7	—	—	—	—	—

X161 Engine Harness to Fuel Injector Jumper Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
8	0.75	D-BU/	4804	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 4	8	0.75	D-BU/	4804	II	—
9	0.75	VT/L-GN	4806	I	—	Direct Fuel Injector (DFI) High Voltage Control Cylinder 6	9	0.75	VT/L-GN	4806	II	—
10	0.75	VT/BK	7300	I	—	High Pressure Fuel Pump Actuator Low - Control	10	0.75	VT/BK	7300	II	—
11	0.75	YE	7301	I	—	High Pressure Fuel Pump Actuator High - Control	11	0.75	YE	7301	II	—
12	—	—	—	—	—	Not Occupied	12	—	—	—	—	—

X175 Engine Harness to Transmission Jumper Harness (LV1)



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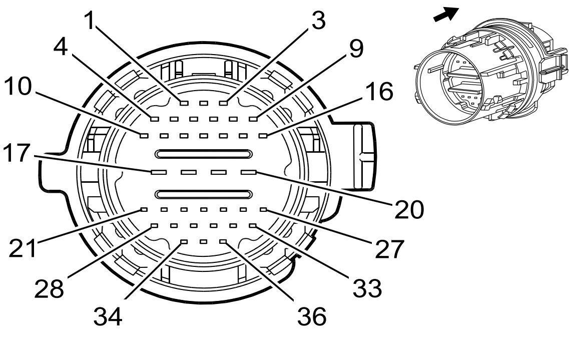


3977661

Connector Part Information

Harness Type: Engine

OEM Connector: 15504573

Service Connector: 19329922

Description: 36-Way F 1.2 MCON-CB, 2.8 MCP Series, Sealed (BK)

Connector Part Information

Harness Type: Transmission Jumper

OEM Connector: Not Available

Service Connector: Service by Harness - See Part Catalog

Description: 36-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19119772	J-35616-35 (VT)	J-38125-557	1241388-1	Lear 17	E	C
II	19300445	J-35616-16 (LT GN)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
III	Not Required	J-35616-17 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X175 Engine Harness to Transmission Jumper Harness (LV1)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	L-GN/WH	6380	II	—	TCC On/Off Solenoid A Control	1	0.5	L-GN/WH	6380	III	—
2	—	—	—	—	—	Not Occupied	2	—	—	—	—	—
3	0.5	YE	6404	II	—	Clutch E Control	3	0.5	YE	6404	III	—
4	0.5	GY/L-GN	6403	II	—	Clutch D Control	4	0.5	GY/L-GN	6403	III	—
5	0.5	BN	6400	II	—	Clutch A Control	5	0.5	BN	6400	III	—
6	0.5	BU/WH	6401	II	—	Clutch B Control	6	0.5	BU/WH	6401	III	—
7	0.5	YE/BN	6210	II	—	TCC On/Off Solenoid B Control	7	0.5	YE/BN	6210	III	—
8 - 9	—	—	—	—	—	Not Occupied	8 - 9	—	—	—	—	—
10	0.5	GY	6402	II	—	Clutch C Control	10	0.5	GY	6402	III	—

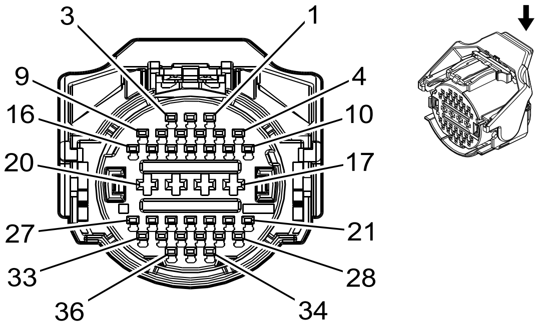
X175 Engine Harness to Transmission Jumper Harness (LV1) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
11	0.5	OG/BK	586	II	—	Transmission Oil Temperature Sensor Low Reference	11	0.5	OG/BK	586	III	—
12	0.5	BN/WH	585	II	—	Transmission Oil Temperature Sensor Signal	12	0.5	BN/WH	585	III	—
13	0.5	WH	4508	II	—	Transmission Clutch G Control	13	0.5	WH	4508	III	—
14	0.5	D-BU/	4507	II	—	Transmission Clutch H Control	14	0.5	BU	4507	III	—
15 - 17	—	—	—	—	—	Not Occupied	15 - 17	—	—	—	—	—
18	0.5	L-GN/GY	6387	I	—	Transmission High Side Driver 1 Signal Driver	18	0.5	L-GN/GY	6387	III	—
19	0.75	GY/BN	6388	I	—	Transmission High Side Driver 2 Signal	19	0.75	GY/BN	6388	III	—
20	—	—	—	—	—	Not Occupied	20	—	—	—	—	—
21	0.5	WH	5983	II	—	PRNDL C Signal	21	0.5	WH	5983	III	—
22	0.5	VT/D-BU	5981	II	—	PRNDL A Signal	22	0.5	VT/D-BU	5981	III	—
23	0.5	GY/WH	4168	II	—	PRNDL P Signal	23	0.5	GY/WH	4168	III	—
24	0.5	GY/D-BU	6358	II	—	Output Speed Signal	24	0.5	GY/D-BU	6358	III	—
25	0.5	VT/WH	4170	II	—	Transmission Position Sensor B 9V Reference	25	0.5	VT/WH	4170	III	—
26	0.5	L-GN	6353	II	—	Input Speed Signal	26	0.5	L-GN	6353	III	—
27	0.5	VT	4171	II	—	Transmission Position Sensor A 9V Reference	27	0.5	VT	4171	III	—
28	0.5	GY/BN	5982	II	—	PRNDL B Signal	28	0.5	GY/BN	5982	III	—
29	0.5	VT	4171	II	—	Transmission Position Sensor A 9V Reference	29	0.5	VT	4171	III	—
30	0.5	WH/BK	3927	II	—	IMS Mode Switch Low Reference	30	0.5	WH/BK	3927	III	—
31	0.5	VT/WH	4170	II	—	Transmission Position Sensor B 9V Reference	31	0.5	VT/WH	4170	III	—

X175 Engine Harness to Transmission Jumper Harness (LV1) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
32	0.5	L-GN/ VT	4510	II	—	Transmission Intermediate Speed Signal	32	0.5	L-GN/ VT	4510	III	—
33	—	—	—	—	—	Not Occupied	33	—	—	—	—	—
34	0.5	GY/ YE	4169	II	—	PRNDL S Signal	34	0.5	GY/ YE	4169	III	—
35	0.5	WH/ GY	1786	II	—	Transmission Park/Neutral Signal 1	35	0.5	WH/ GY	1786	III	—
36	—	—	—	—	—	Not Occupied	36	—	—	—	—	—

X175 Engine Harness to Transmission Jumper Harness (LWN)



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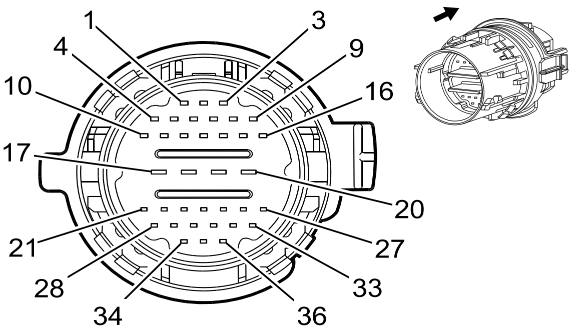


3977661

Connector Part Information

Harness Type: Engine

OEM Connector: 15504573

Service Connector: 19329922

Description: 36-Way F 1.2 MCON-CB, 2.8 MCP Series, Sealed (BK)

Connector Part Information

Harness Type: Transmission Jumper

OEM Connector: Not Available

Service Connector: Service by Harness - See Part Catalog

Description: 36-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19119772	J-35616-35 (VT)	J-38125-557	1241388-1	Lear 17	E	C
II	19300445	J-35616-16 (LT GN)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
III	Not Required	J-35616-17 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X175 Engine Harness to Transmission Jumper Harness (LWN)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	L-GN/WH	6380	II	—	TCC On/Off Solenoid A Control	1	0.5	L-GN/WH	6380	III	—
2	—	—	—	—	—	Not Occupied	2	—	—	—	—	—
3	0.5	YE/BN	6404	II	—	Clutch E Control	3	0.5	YE/BN	6404	III	—
4	0.5	GY/L-GN	6403	II	—	Clutch D Control	4	0.5	GY/L-GN	6403	III	—
5	0.5	BN	6400	II	—	Clutch A Control	5	0.5	BN	6400	III	—
6	0.5	D-BU/	6401	II	—	Clutch B Control	6	0.5	D-BU/	6401	III	—
7	0.5	YE/BN	6210	II	—	TCC On/Off Solenoid B Control	7	0.5	YE/BN	6210	III	—
8 - 9	—	—	—	—	—	Not Occupied	8 - 9	—	—	—	—	—
10	0.5	GY	6402	II	—	Clutch C Control	10	0.5	GY	6402	III	—

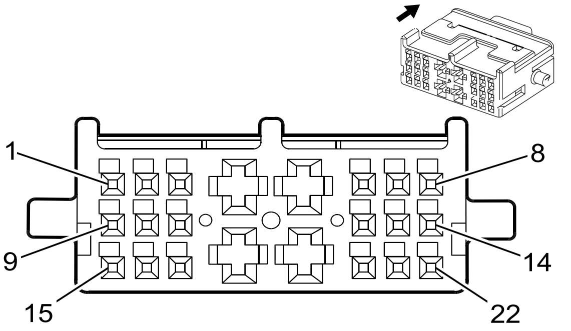
X175 Engine Harness to Transmission Jumper Harness (LWN) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
11	0.5	BK/BN	586	II	—	Transmission Oil Temperature Sensor Low Reference	11	0.5	BK/BN	586	III	—
12	0.5	BN/WH	585	II	—	Transmission Oil Temperature Sensor Signal	12	0.5	BN/WH	585	III	—
13	0.5	WH	4508	II	—	Transmission Clutch G Control	13	0.5	WH	4508	III	—
14	0.5	WH/D-BU	4507	II	—	Transmission Clutch H Control	14	0.5	WH/D-BU	4507	III	—
15 - 17	—	—	—	—	—	Not Occupied	15 - 17	—	—	—	—	—
18	0.5	L-GN/GY	6387	I	—	Transmission High Side Driver 1 Signal Driver	18	0.5	L-GN/GY	6387	III	—
19	0.75	GY/BN	6388	I	—	Transmission High Side Driver 2 Signal	19	0.75	GY/BN	6388	III	—
20	—	—	—	—	—	Not Occupied	20	—	—	—	—	—
21	0.5	WH/BK	5983	II	—	PRNDL C Signal	21	0.5	WH/BK	5983	III	—
22	0.5	VT/WH	5981	II	—	PRNDL A Signal	22	0.5	VT/WH	5981	III	—
23	0.5	GY/WH	4168	II	—	PRNDL P Signal	23	0.5	GY/WH	4168	III	—
24	0.5	GY/D-BU	6358	II	—	Output Speed Signal	24	0.5	GY/D-BU	6358	III	—
25	0.5	YE/L-GN	4170	II	—	Transmission Position Sensor B 9V Reference	25	0.5	YE/L-GN	4170	III	—
26	0.5	L-GN/YE	6353	II	—	Input Speed Signal	26	0.5	L-GN/YE	6353	III	—
27	0.5	YE/D-BU	4171	II	—	Transmission Position Sensor A 9V Reference	27	0.5	YE/D-BU	4171	III	—
28	0.5	GY/BN	5982	II	—	PRNDL B Signal	28	0.5	GY/BN	5982	III	—
29	0.5	YE/D-BU	4171	II	—	Transmission Position Sensor A 9V Reference	29	0.5	YE/D-BU	4171	III	—
30	0.5	BK/GY	3927	II	—	IMS Mode Switch Low Reference	30	0.5	BK/GY	3927	III	—
31	0.5	YE/L-GN	4170	II	—	Transmission Position Sensor B 9V Reference	31	0.5	YE/L-GN	4170	III	—

X175 Engine Harness to Transmission Jumper Harness (LWN) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
32	0.5	L-GN/ VT	4510	II	—	Transmission Intermediate Speed Signal	32	0.5	L-GN/ VT	4510	III	—
33	—	—	—	—	—	Not Occupied	33	—	—	—	—	—
34	0.5	GY/ YE	4169	II	—	PRNDL S Signal	34	0.5	GY/ YE	4169	III	—
35	0.5	WH/ GY	1786	II	—	Transmission Park/Neutral Signal 1	35	0.5	WH/ GY	1786	III	—
36	—	—	—	—	—	Not Occupied	36	—	—	—	—	—

X176 Transmission Case Harness to Transmission Control Harness (M5U)



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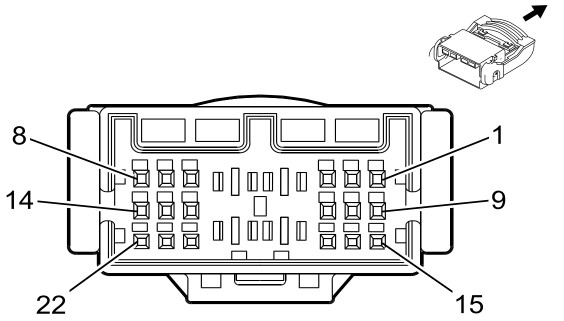


3977770

Connector Part Information

Harness Type: Transmission Case

OEM Connector: 1897543-1

Service Connector: Service by Harness - See Part Catalog

Description: 22-Way F 0.64 Micro-Quadlock, 2.8 Micro-Power Series (NA)

Connector Part Information

Harness Type: Transmission Control

OEM Connector: 1897540-1

Service Connector: Service by Harness - See Part Catalog

Description: 22-Way M 0.64 Micro-Quadlock, 2.8 Micro-Power Series (NA)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

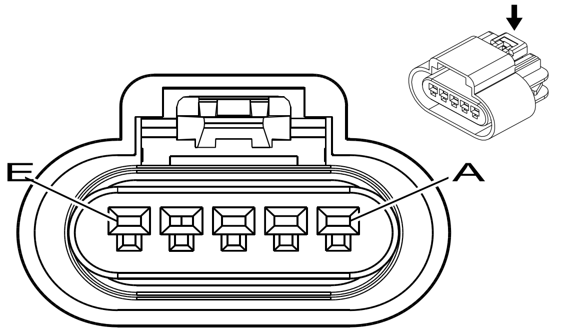
X176 Transmission Case Harness to Transmission Control Harness (M5U)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	6380	I	—	TCC On/Off Solenoid A Control	1	—	—	6380	II	—
2	—	VT/WH	5981	I	—	PRNDL A Signal	2	—	VT/WH	5981	II	—
3	—	GY/BN	5982	I	—	PRNDL B Signal	3	—	PK/BK	5982	II	—
4	—	—	6387	I	—	Transmission High Side Driver 1 Signal Driver	4	—	—	6387	II	—
5	—	PU	4171	I	—	Transmission Position Sensor A 9V Reference	5	—	VT	4171	II	—
6	—	GY/YE	4169	I	—	PRNDL S Signal	6	—	PK	4169	II	—
7	—	—	4507	I	—	Transmission Clutch H Control	7	—	—	4507	II	—
8	—	—	6403	I	—	Clutch D Control	8	—	—	6403	II	—

X176 Transmission Case Harness to Transmission Control Harness (M5U) (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	—	WH	4508	I	—	Transmission Clutch G Control	9	—	WH	4508	II	—
10	—	YE/ BN	6210	I	—	TCC On/Off Solenoid B Control	10	—	YE/ BN	6210	II	—
11	—	OG/ BK	5983	I	—	PRNDL C Signal	11	—	OG/ BK	5983	II	—
12	— —	WH/ GY OG/ BK	1786 1786	I I	— —	Transmission Park/Neutral Signal 1 Transmission Park/Neutral Signal 1	12	— —	WH/ GY OG/ BK	1786 1786	II II	— —
13	—	GY	6402	I	—	Clutch C Control	13	—	GY	6402	II	—
14	—	YE/ BN	6404	I	—	Clutch E Control	14	—	YE/ BN	6404	II	—
15	—	BN/ WH	585	I	—	Transmission Oil Temperature Sensor Signal	15	—	BN/ WH	585	II	—
16	—	OG/ BK	586	I	—	Transmission Oil Temperature Sensor Low Reference	16	—	OG/ BK	586	II	—
17	—	GY	4168	I	—	PRNDL P Signal	17	—	GY	4168	II	—
18	—	GY/ BN	6388	I	—	Transmission High Side Driver 2 Signal	18	—	GY/ BN	6388	II	—
19	—	PU/ WH	4170	I	—	Transmission Position Sensor B 9V Reference	19	—	VT/ WH	4170	II	—
20	—	WH/ BK	3927	I	—	IMS Mode Switch Low Reference	20	—	WH/ BK	3927	II	—
21	—	BN	6400	I	—	Clutch A Control	21	—	BN	6400	II	—
22	—	D-BU	6401	I	—	Clutch B Control	22	—	D-BU	6401	II	—

X177 Engine Harness to Camshaft Position Sensor Jumper Harness



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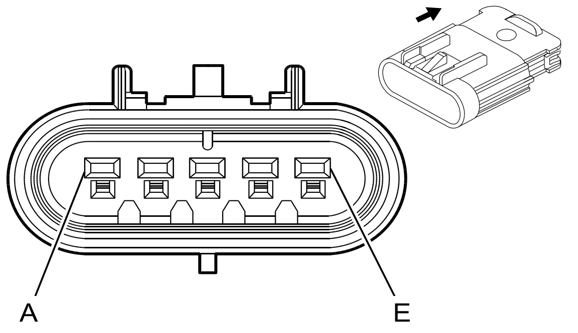


1334521

Connector Part Information

Harness Type: Engine
OEM Connector: 13519051
Service Connector: 13585858
Description: 5-Way F 150 GT Series, Sealed (BK)

Connector Part Information

Harness Type: Camshaft Position Sensor Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 5-Way M

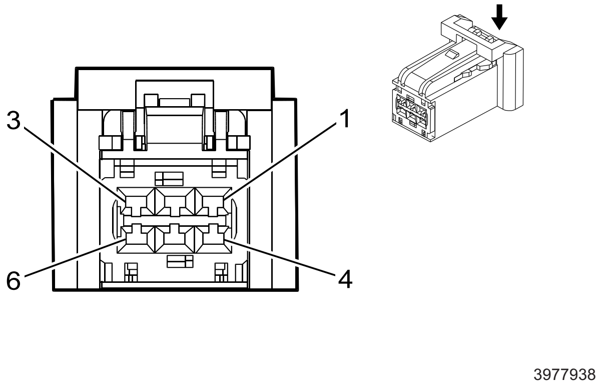
Terminal Part Information

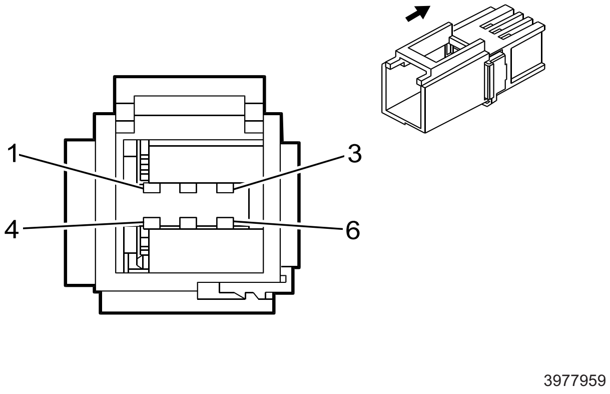
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

X177 Engine Harness to Camshaft Position Sensor Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.8	D-BU/	6259	I	—	Camshaft CAM W Control	A	0.8	D-BU/	6259	II	—
B	0.8	BN	6266	I	—	Camshaft CAM W Ground	B	0.8	BN	6266	II	—
C	0.8	D-BU/WH	6265	I	—	Camshaft CAM W Signal	C	0.8	D-BU/WH	6265	II	—
D	0.8	PU/	5284	I	—	Camshaft Phaser Intake Solenoid 1	D	0.8	PU/	5284	II	—
E	0.8	TN	2199	I	—	Camshaft Phaser Solenoid Low Reference	E	0.8	TN	2199	II	—

X178 Transmission Case Harness to Speed Sensor Assembly Harness (M5U)





Connector Part Information

Harness Type: Transmission Case
OEM Connector: 13960975
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 1.2 OCS Series (NA)

Connector Part Information

Harness Type: Speed Sensor Assembly
OEM Connector: 13955963
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way M 0.64 II Series (GY)

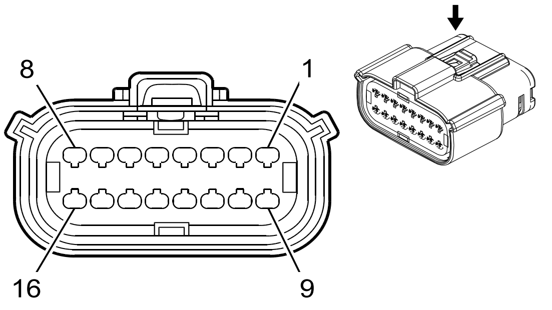
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

X178 Transmission Case Harness to Speed Sensor Assembly Harness (M5U)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	—	—	6358	I	—	Output Speed Signal	1	—	PK	6358	II	—
2	—	VT/ WH	4170	I	—	Transmission Position Sensor B 9V Reference	2	—	VT/ WH	4170	II	—
3	—	VT/ WH	4170	I	—	Transmission Position Sensor B 9V Reference	3	—	VT/ WH	4170	II	—
4	—	VT	4171	I	—	Transmission Position Sensor A 9V Reference	4	—	VT	4171	II	—
5	—	—	6353	I	—	Input Speed Signal	5	—	D-GN	6353	II	—
6	—	—	4510	I	—	Transmission Intermediate Speed Signal	6	—	—	4510	II	—

X185 Instrument Panel Harness to Chassis Harness



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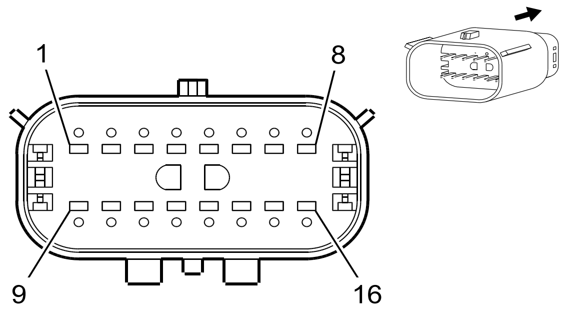


2548390

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13778557
Service Connector: 13584788
Description: 16-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Chassis
OEM Connector: 33372790
Service Connector: 19369662
Description: 16-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19300432	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
II	19119395	J-35616-3 (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available

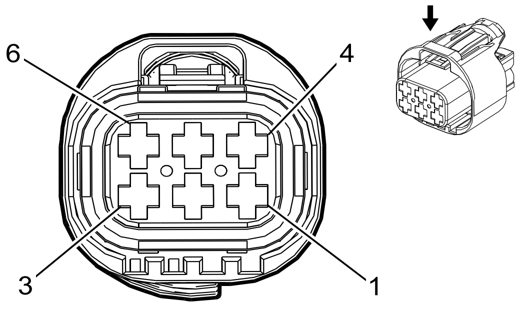
X185 Instrument Panel Harness to Chassis Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	RD/L-GN	3140	I	—	Battery Positive Voltage	1	0.5	RD/L-GN	3140	II	—
2	0.5	L-GN/	5060	I	—	Low Speed GMLAN Serial Data	2	0.5	L-GN/	5060	II	—
3 - 7	—	—	—	—	—	Not Occupied	3 - 7	—	—	—	—	—
8	0.5	BU/YE	6105	I	—	High Speed GMLAN Serial Data (+) 2	8	0.5	BU/YE	6105	II	—
9	0.5	GY/YE	5853	I	UFT	Driver Side Object Detection LED Signal 1	9	0.5	GY/YE	5853	II	UFT
10	0.5	GY	5861	I	UFT	Passenger Side Object Detection LED Signal 1	10	0.5	GY	5861	II	UFT
11 - 14	—	—	—	—	—	Not Occupied	11 - 14	—	—	—	—	—

X185 Instrument Panel Harness to Chassis Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
15	0.5	L-GN/BN	2087	I	—	Combined Vehicle Inertial Sensor Supply Voltage	15	0.5	L-GN/BN	2087	II	—
16	0.5	WH	6106	I	—	High Speed GMLAN Serial Data (-) 2	16	0.5	WH	6106	II	—

X190 Accessory Harness to Accessory Power Fuse Block Rear Extension Harness



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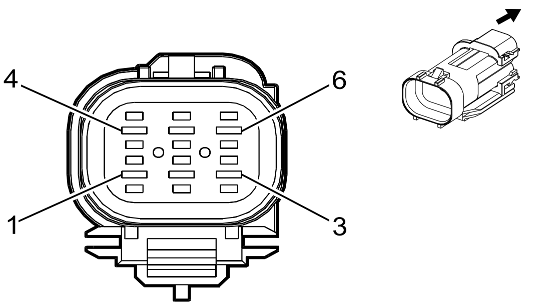


2042939

Connector Part Information

Harness Type: Accessory

OEM Connector: 10865192

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way F 2.8 Junior Power Timer Series, Sealed (BK)

Connector Part Information

Harness Type: Accessory Power Fuse Block Rear Extension

OEM Connector: 10865189

Service Connector: Service by Harness - See Part Catalog

Description: 6-Way M 2.8 Series, Sealed (BK)

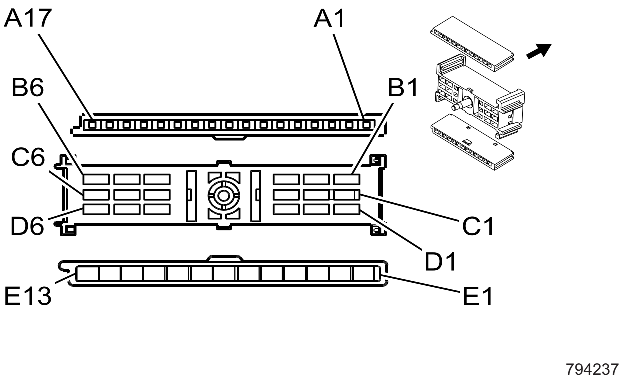
Terminal Part Information

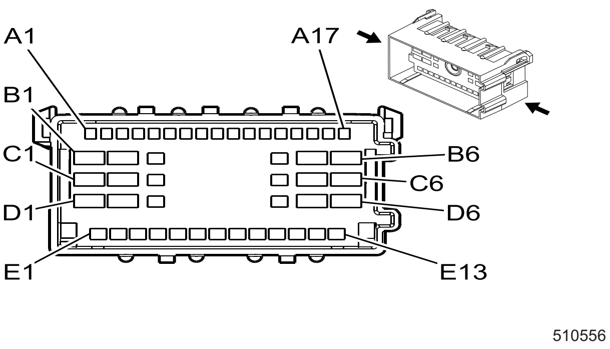
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X190 Accessory Harness to Accessory Power Fuse Block Rear Extension Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	L-BU	6842	I	—	Auxiliary Device Relay 1 Control	1	0.5	L-BU/	6842	II	—
2	2.5	L-GN	6839	I	—	Auxiliary Device 1 Switched Voltage	2	2.5	L-GN	6839	II	—
3	0.5	D-BU/	6843	I	—	Auxiliary Device Relay 2 Control	3	0.5	D-BU/	6843	II	—
4	2.5	D-GN	6840	I	—	Auxiliary Device 2 Switched Voltage	4	2.5	D-GN/	6840	II	—
5	1	RD/WH	5440	I	—	Battery Positive Voltage	5	1	RD/WH	5440	II	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—

X200 Steering Column Harness to Instrument Panel Harness





Connector Part Information

Harness Type: Steering Column
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 48-Way F

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15492579
Service Connector: 88988982
Description: 48-Way M 150, 280, 630 Metri-Pack Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	13575462	J-35616-3 (GY)	J-38125-12A	12047581	Delphi 2	E	C
III	13575463	J-35616-3 (GY)	J-38125-12A	12047581	Delphi 2	E	C
IV	13575715	J-35616-5 (PU)	J-38125-11A	12034047	Delphi 2	E	A
V	19330180	J-35616-43 (RD)	J-38125-11A	12020126	Delphi 2	E	A

X200 Steering Column Harness to Instrument Panel Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A1	0.35	TN	28	I	—	Horn Relay Control	A1	0.35	TN	28	III	—
A2	—	—	—	—	—	Not Occupied	A2	—	—	—	—	—
A3	0.35	PK	1444	I	—	12V Reference	A3	0.35	PK	1444	III	—
A4	0.35	PU/	5526	I	—	Tap Up/Tap Down Switch Signal	A4	0.35	PU/	5526	III	—
A5	—	—	—	—	—	Not Occupied	A5	—	—	—	—	—
A6	0.5	L-GN/ BN	2087	I	—	Combined Vehicle Inertial Sensor Supply Voltage	A6	0.5	L-GN/ BN	2087	II	—

X200 Steering Column Harness to Instrument Panel Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A7-A8	—	—	—	—	—	Not Occupied	A7-A8	—	—	—	—	—
A9	0.35	PK	3	I	—	Run/Crank Ignition 1 Voltage	A9	0.35	PK	3	III	—
A10	—	—	—	—	—	Not Occupied	A10	—	—	—	—	—
A11	0.35	L-GN	6818	I	—	Steering Wheel Resistor Ladder Signal 1	A11	0.35	L-GN	6818	III	—
A12	—	—	—	—	—	Not Occupied	A12	—	—	—	—	—
A13	0.35	D-GN/WH	7158	I	—	Cruise Control Indicator Dimming Signal	A13	0.35	D-GN/WH	7158	III	—
A14	—	—	—	—	—	Not Occupied	A14	—	—	—	—	—
A15	0.35	BN	6136	I	—	Control	A15	0.35	BN	6136	III	—
A16	—	—	—	—	—	Not Occupied	A16	—	—	—	—	—
A17	0.35	GY	1884	I	—	Cruise Control Set/Coast/Resume/Accelerate Switch Signal	A17	0.35	GY	1884	III	—
B1	0.35	RD/WH	540	I	—	Battery Positive Voltage	B1	0.35	RD/WH	540	V	—
B2	—	—	—	—	—	Not Occupied	B2	—	—	—	—	—
B3	0.35	WH	111	I	—	Hazard Switch Signal	B3	0.35	WH	111	IV	—
B4-B5	—	—	—	—	—	Not Occupied	B4-B5	—	—	—	—	—
B6	0.35	PK	1020	I	—	Off/Run/Crank Ignition Voltage	B6	0.35	PK	1020	V	—
C1	0.35	WH	530	I	—	Off/Run/Crank Ignition Voltage	C1	0.35	WH	530	V	—
C2	—	—	—	—	—	Not Occupied	C2	—	—	—	—	—
C3	0.35	YE	307	I	—	Headlamp Switch Flash To Pass Signal	C3	0.35	YE	307	IV	—

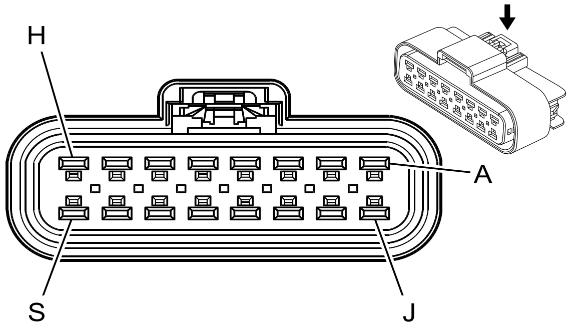
X200 Steering Column Harness to Instrument Panel Harness (cont'd)

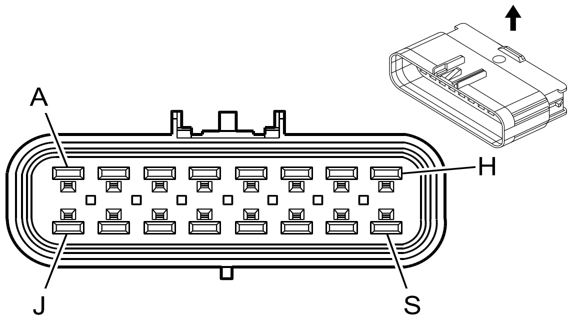
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
C4 - C5	—	—	—	—	—	Not Occupied	C4 - C5	—	—	—	—	—
C6	0.35	BN	4	I	—	Accessory Ignition Voltage	C6	0.35	BN	4	V	—
D1	0.35	TN/ BK	6009	I	—	Windshield Wiper Switch Low Reference	D1	0.35	TN/ BK	6009	V	—
D2	—	—	—	—	—	Not Occupied	D2	—	—	—	—	—
D3	0.35	YE	525	I	—	Headlamp Dimmer Switch Low Beam Signal	D3	0.35	YE	525	IV	—
D4	0.5	TN/ WH	816	I	—	Brake Transmission Shift Interlock Solenoid Control	D4	0.5	TN/ WH	816	IV	—
D5	—	—	—	—	—	Not Occupied	D5	—	—	—	—	—
D6	0.35	PK	94	I	—	Windshield Washer Switch Signal	D6	0.35	PK	94	V	—
E1	0.5	BK	350	I	—	Ground	E1	0.5	BK	350	IV	—
E2	—	—	—	—	—	Not Occupied	E2	—	—	—	—	—
E3	0.5	BK/ WH	351	I	—	Signal Ground	E3	0.5	BK/ WH	351	IV	—
E4	0.5	BU/ YE	6105	I	—	High Speed GMLAN Serial Data (+) 2	E4	0.5	BU/ YE	6105	IV	—
E5	0.5	WH	6106	I	—	High Speed GMLAN Serial Data (-) 2	E5	0.5	WH	6106	IV	—
E6	0.5	BU/ YE	6105	I	—	High Speed GMLAN Serial Data (+) 2	E6	0.5	BU/ YE	6105	IV	—
E7	0.5	WH	6106	I	—	High Speed GMLAN Serial Data (-) 2	E7	0.5	WH	6106	IV	—
E8	0.35	D-GN	663	I	—	Hazard Switch Left Turn Signal	E8	0.35	D-GN	663	IV	—
E9	0.35	TN	664	I	—	Hazard Switch Right Turn Signal	E9	0.35	TN	664	IV	—
E1-0	—	—	—	—	—	Not Occupied	E1-0	—	—	—	—	—
E1-1	0.35	L-BU	1714	I	—	Windshield Wiper Switch Low Signal	E11	0.35	L-BU	1714	IV	—

X200 Steering Column Harness to Instrument Panel Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
E1-2	0.35	L-GN	1715	I	—	Windshield Wiper Switch High Signal	E1-2	0.35	L-GN	1715	IV	—
E1-3	0.35	D-GN	5060	I	—	Low Speed GMLAN Serial Data	E1-3	0.35	D-GN	5060	IV	—

X202 Instrument Panel Harness to Engine Harness





Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15326666
Service Connector: 15326666
Description: 16-Way F 280 GT Series, Sealed (BK)

Connector Part Information

Harness Type: Engine
OEM Connector: 15326667
Service Connector: 88986347
Description: 16-Way M 280 GT Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13576356	J-35616-4A (PU)	J-38125-553	15304719	Delphi 19	E	5
II	13580826	J-35616-5 (PU)	J-38125-553	15304731	Delphi 19	E	5

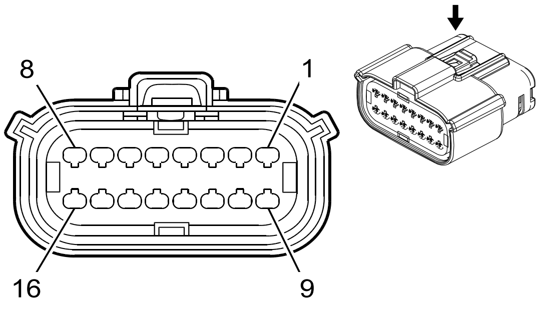
X202 Instrument Panel Harness to Engine Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	YE/VT	2378	I	UD7	Right Rear Corner Object Sensor Signal	A	0.5	YE/VT	2378	II	UD7
B	0.5	YE/WH	2377	I	UD7	Right Rear Middle Object Sensor Signal	B	0.5	YE/WH	2377	II	UD7
C	0.5	RD/WH	840	I	—	Battery Positive Voltage	C	0.5	RD/WH	840	II	—
D - E	—	—	—	—	—	Not Occupied	D - E	—	—	—	—	—
F	0.5	BN	5360	I	—	Brake Apply Sensor Low Reference	F	0.5 0.5	BK/BN BN	5360 5360	II II	LV1/LWN LC8/L96
G	0.5	BN/WH	2374	I	UD7	Object Sensor Control	G	0.5	BN/WH	2374	II	UD7
H	0.5	YE	2375	I	—	Left Rear Corner Object Sensor Signal	H	0.5	YE	2375	II	—

X202 Instrument Panel Harness to Engine Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
J	0.5	BK/GY	2379	I	UD7	Object Sensor Low Reference	J	0.5	BK/GY	2379	II	UD7
K - L	—	—	—	—	—	Not Occupied	K - L	—	—	—	—	—
M	0.5	RD/WH	4892	I	—	Auxiliary Battery Relay Control	M	0.5	RD/WH	4892	II	—
N	—	—	—	—	—	Not Occupied	N	—	—	—	—	—
P	0.5	YE	5361	I	—	Brake Apply Sensor Signal	P	0.5 0.5	D-BU/YE YE	5361 5361	II II	LV1/LWN LC8/L96
R	0.5	WH	5359	I	—	Brake Apply Sensor Control	R	0.5	WH	5359	II	—
S	0.5	YE/D-BU	2376	I	UD7	Left Rear Middle Object Sensor Signal	S	0.5	YE/D-BU	2376	II	UD7

X204 Body Harness to Headliner Harness



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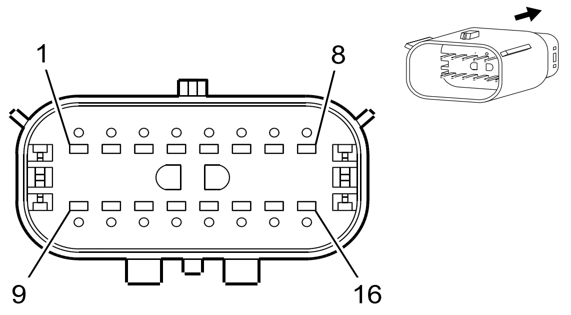


2548390

Connector Part Information

Harness Type: Body
OEM Connector: 13778557
Service Connector: 13584788
Description: 16-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Headliner
OEM Connector: 33372790
Service Connector: 19369662
Description: 16-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19300432	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
II	19300635	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
III	19119395	J-35616-3 (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
IV	19119440	J-35616-3 (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available

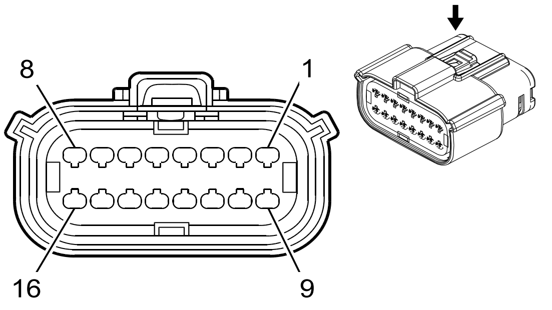
X204 Body Harness to Headliner Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5 0.35	BU BU	7641 7641	I II	UVC +CARGO/ PASSENGER UVC +CUTAWAY	Camera Rear Vision Signal + Camera Rear Vision Signal +	1	0.5 0.5 0.5 0.5 0.5	WH BU BU WH BU	7641 7641 7641 7641 7641	IV IV III IV IV	UVC UVC+UEU/UFL UVC-UEU/UFL UVC UVC+UEU/UFL
2	0.5 0.35	BU BU	7642 7642	I II	UVC +CARGO/ PASSENGER UVC +CUTAWAY	Camera Rear Vision Signal (-) Camera Rear Vision Signal (-)	2	0.5 0.5 0.5	WH BU WH	7642 7642 7642	III IV III	UVC+UEU/UFL UVC-UEU/UFL UVC+UEU/UFL

X204 Body Harness to Headliner Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
3	0.5	BK	6799	I	—	Camera Shield Ground	3	0.5 0.5	BK BK	6799 6799	IV III	UVC+UEU/UFL UVC-UEU/UFL
4	—	—	—	—	—	Not Occupied	4	—	—	—	—	—
5	0.5	PK	239	I	UVC	Run/Crank Ignition 1 Voltage	5	0.5 0.5	VT/WH PK	239 239	III IV	UVC+UEU/UFL UVC-UEU/UFL
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—
7	0.8	D-GN/	654	I	—	Cellular Telephone Microphone Low Reference	7	0.8	D-GN/	654	IV	—
8	0.8	GY	655	I	—	Cellular Telephone Microphone Signal	8	0.8	GY	655	IV	—
9	0.5	L-GN/	24	I	UVC	Backup Lamp Control	9	0.5 0.5	GN/WH L-GN/	24 24	III IV	UVC-UEU/UFL UVC+UEU/UFL
10	0.5	BK	1850	I	—	Ground	10	0.5	BK	1850	III	—
11	0.5	GY/WH	3153	I	—	Lane Departure Warning Disable Switch Signal	11	0.5	GY/WH	3153	III	—
12	0.5	GN	5060	I	—	Low Speed GMLAN Serial Data	12	0.5	GN	5060	III	—
13	—	—	—	—	—	Not Occupied	13	—	—	—	—	—
14	0.5	WH	3152	I	—	Lane Departure Warning Indicator Control	14	0.5	WH	3152	III	—
15	—	—	—	—	—	Not Occupied	15	—	—	—	—	—
16	0.5	RD/GN	3140	I	—	Battery Positive Voltage	16	0.5	RD/GN	3140	III	—

X205 Front Headliner Harness to Body Harness



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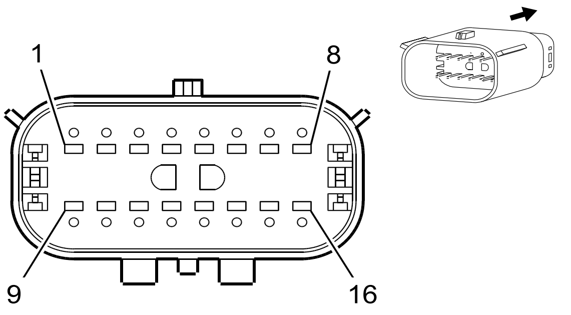


2548390

Connector Part Information

Harness Type: Headliner
OEM Connector: 13778557
Service Connector: 13584788
Description: 16-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 33372790
Service Connector: 19369662
Description: 16-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	19300432	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
II	19300635	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
III	19119395	J-35616-3 (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
IV	19119440	J-35616-3 (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
V	19119842	J-35616-3 (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available

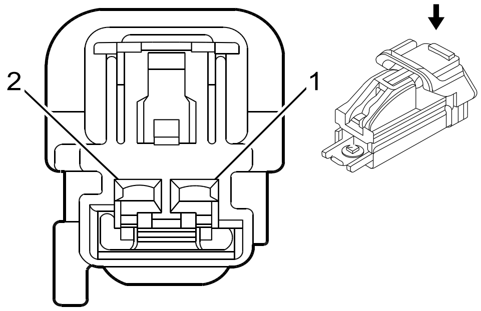
X205 Front Headliner Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.35	BN	441	II	—	Run Ignition 3 Voltage	1	0.35	BN	441	V	—
2	0.5	OG	1925	I	—	Auxiliary Blower Motor Medium Speed Control	2	0.35	OG	1925	V	—
3	0.5	PK/BK	5265	I	—	Dual Logic Module Rear Control Signal	3	0.5	PK/BK	5265	III	—
4	0.35	GY	2599	II	—	Rear Mode Motor Signal	4	0.35	GY	2599	V	—
5	0.5	WH	1924	I	—	Auxiliary Blower Motor High Speed Control	5	0.35	WH	1924	V	—
6	0.35	BN	341	II	—	Run Ignition 3 Voltage	6	0.35	BN	341	V	—

X205 Front Headliner Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7	1 0.8	BK BK	1850 1850	I I	C69/DH6-YF1 -C69-DH6/YF1	Ground Ground	7	1	BK	1850	IV	—
8	0.5	D-BU/WH	149	I	—	Courtesy Lamp Control	8	0.5	D-BU/WH	149	III	—
9	0.5	BK/WH	351	I	—	Signal Ground	9	0.35	BK/WH	351	V	—
10	0.5	BN	5263	I	—	Dual Logic Module Rear Temperature Signal	10	0.5	BN	5263	III	—
11	0.35	D-GN/	6134	II	—	Local Interconnect Network Serial Data Bus 3	11	0.35	D-GN/	6134	V	—
12	0.35	OG	2775	II	—	Rear Air Temperature Motor Control	12	0.35	OG	2775	V	—
13	0.5	VT/WH	5264	I	—	Dual Logic Module Rear Mode Signal	13	0.5	VT/WH	5264	III	—
14	0.5	D-BU/	1926	I	—	Auxiliary Blower Motor Low Speed Control	14	0.35	D-BU/	1926	V	—
15	0.35	BN/WH	230	II	—	Instrument Panel Lamp Dimming Control	15	0.35	BN/WH	230	V	—
16	0.5 0.8	OG OG	1732 1732	I I	(5BV+C69-TR9-YF1)/(DH6-TR9-5BV-YF1) TR9	Electronic Control Unit 12V Reference 3 Electronic Control Unit 12V Reference 3	16	0.8	OG	1732	IV	—

X206 Instrument Panel Harness to Instrument Panel Harness



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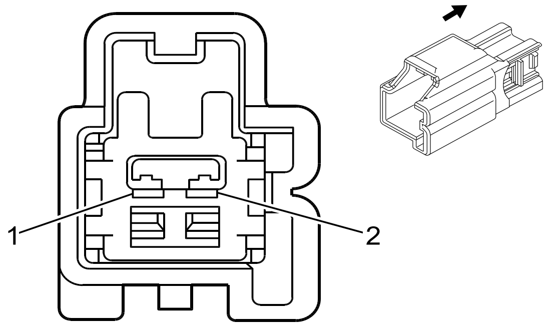


1853532

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 10846794
Service Connector: 19367525
Description: 2-Way F 1.5 YESC Series (L-GY)

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 10846798
Service Connector: 19367526
Description: 2-Way M 1.5 Series (L-GY)

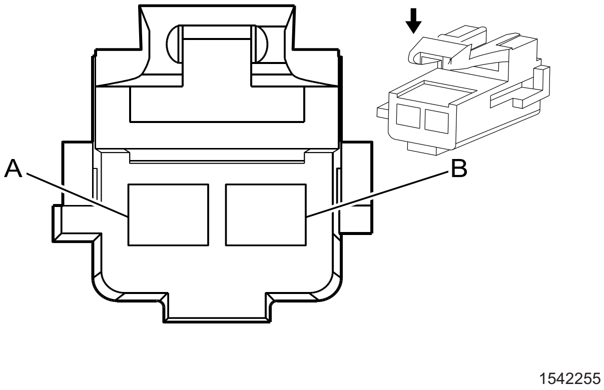
Terminal Part Information

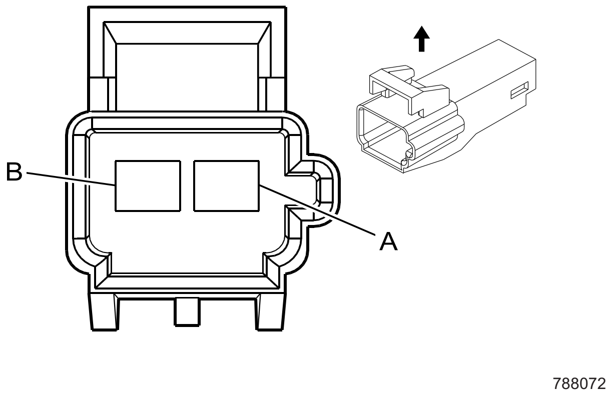
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X206 Instrument Panel Harness to Instrument Panel Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	L-BU	20	I	—	Stop Lamp Control	1	0.5	L-BU	20	II	—
2	0.5	BK	350	I	—	Ground	2	0.5	BK	350	II	—

X220 Instrument Panel Harness to Park Brake Jumper Harness





Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12129082
Service Connector: 15305896
Description: 2-Way F 280 Metri-Pack Flexlock Series (GY)

Connector Part Information

Harness Type: Park Brake Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M

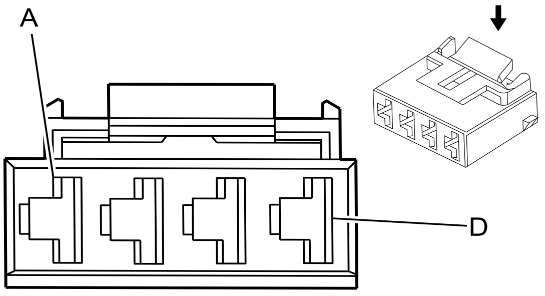
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X220 Instrument Panel Harness to Park Brake Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.35	L-BU	1134	I	—	Park Brake Switch Signal	A	0.35	L-BU	1134	II	—
B	—	—	—	—	—	Not Occupied	B	—	—	—	—	—

X222 Upfitter Provision Harness to Instrument Panel Harness



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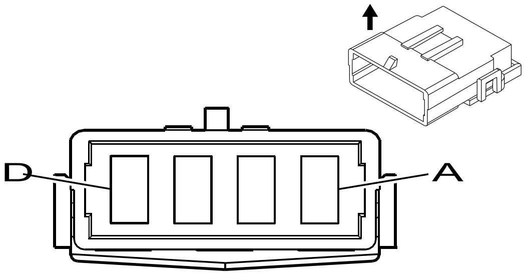


655680

Connector Part Information

Harness Type: Upfitter Provision
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12052623
Service Connector: 15306008
Description: 4-Way M 630 Metri-Pack Series (BK)

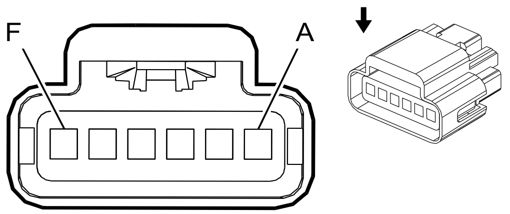
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-43 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X222 Upfitter Provision Harness to Instrument Panel Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	5	RD/ BK	1042	I	—	Battery Positive Voltage	A	5	RD/ BK	1042	II	—
B	5	BN	541	I	—	Run Ignition 3 Voltage	B	5	BN	541	II	—
C	5	BK	350	I	—	Ground	C	5	BK	350	II	—
D	—	—	—	—	—	Not Occupied	D	—	—	—	—	—

X225 Accelerator Pedal Position Sensor Harness to Instrument Panel Harness



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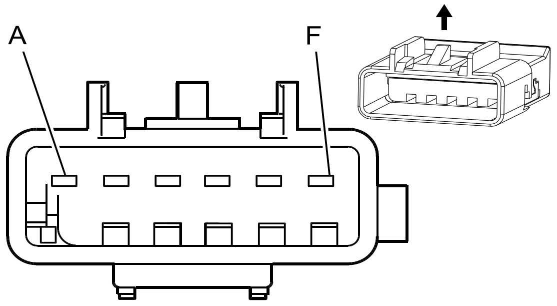


1464340

Connector Part Information

Harness Type: Accelerator Pedal Position Sensor
OEM Connector: 13667186
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 150 GT FBT Series (BK)

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15332142
Service Connector: 19368863
Description: 6-Way M 150 GT Series (BK)

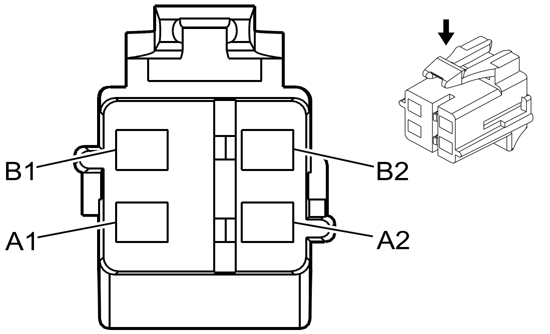
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X225 Accelerator Pedal Position Sensor Harness to Instrument Panel Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.35	TN	1274	I	—	Accelerator Pedal Position 5V Reference 2	A	0.35	BN/RD	1274	II	—
B	0.35	WH/BK	1164	I	—	Accelerator Pedal Position 5V Reference 1	B	0.35	WH/RD	1164	II	—
C	0.35	D-BU/	1161	I	—	Accelerator Pedal Position Signal 1	C	0.35	YE/WH	1161	II	—
D	0.35	BK/BU	1271	I	—	Accelerator Pedal Position Low Reference 1	D	0.35	BK/D-BU	1271	II	—
E	0.35	PU/	1272	I	—	Accelerator Pedal Position Low Reference 2	E	0.35	BK/VT	1272	II	—
F	0.35	L-BU	1162	I	—	Accelerator Pedal Position Signal 2	F	0.35	L-GN/WH	1162	II	—

X276 Steering Wheel Harness to Instrument Panel Harness



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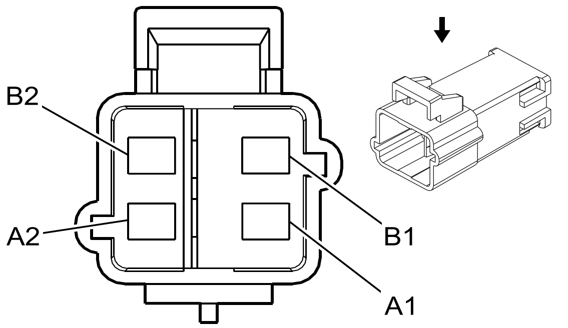


684931

Connector Part Information

Harness Type: Steering Wheel
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15336476
Service Connector: 88987998
Description: 4-Way M 280 Metri-Pack Series (YE)

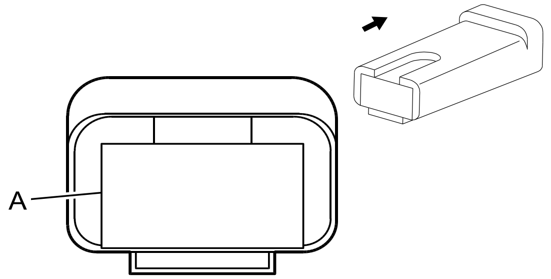
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X276 Steering Wheel Harness to Instrument Panel Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A1	0.5	TN	3021	I	—	Steering Wheel Module Stage 1 High Control	A1	0.5	TN	3021	II	—
A2	0.5	BN	3020	I	—	Steering Wheel Module Stage 1 Low Control	A2	0.5	BN	3020	II	—
B1 - B2	—	—	—	—	—	Not Occupied	B1 - B2	—	—	—	—	—

X289 Rear Body Harness to Instrument Panel Harness



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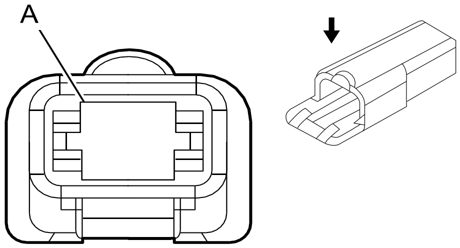


2698491

Connector Part Information

Harness Type: Rear Body
OEM Connector: 6288704
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 56 Series (CR)

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 2984528
Service Connector: 02984528
Description: 1-Way M 56 Series (BK)

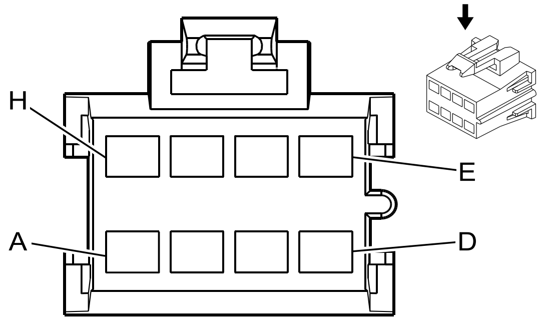
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-43 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X289 Rear Body Harness to Instrument Panel Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	5	RD	1042	I	—	Battery Positive Voltage	A	5	RD/ BK	1042	II	—

X290 Instrument Panel Harness to Rear Body Harness



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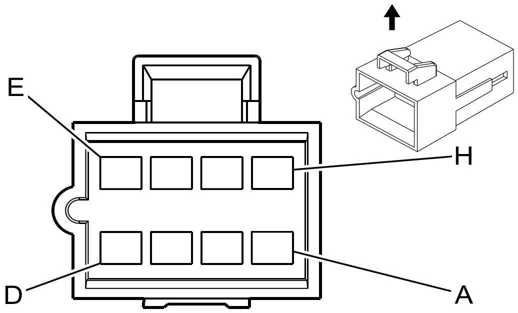


655684

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12064998
Service Connector: 15306189
Description: 8-Way F 280 Metri-Pack Series (BK)

Connector Part Information

Harness Type: Rear Body
OEM Connector: 12066195
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way M 280 Metri-Pack Series (BK)

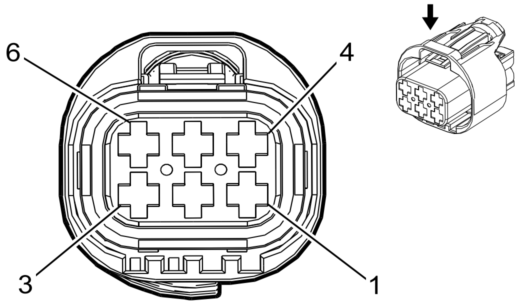
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X290 Instrument Panel Harness to Rear Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	L-BU	244	I	—	Passenger Door Lock Switch Lock Control	A	0.5	L-BU/ WH	244	II	—
B	0.5	L-BU	1344	I	—	Rear Compartment Lid Release Relay Control	B	0.5	L-BU	1344	II	—
C	0.5	L-GN	1391	I	—	Left Front Door Lock Relay Control	C	20	L-GN	1391	II	—
D - F	—	—	—	—	—	Not Occupied	D - F	—	—	—	—	—
G	0.8	OG	1732	I	—	Electronic Control Unit 12V Reference 3	G	0.8	RD	1732	II	—
H	0.5	YE	5810	I	—	Park Enable Signal	H	0.5	OG	5810	II	—

X291 Accessory Power Fuse Block Rear Extension Harness to Accessory Power Fuse Block Rear Extension Harness



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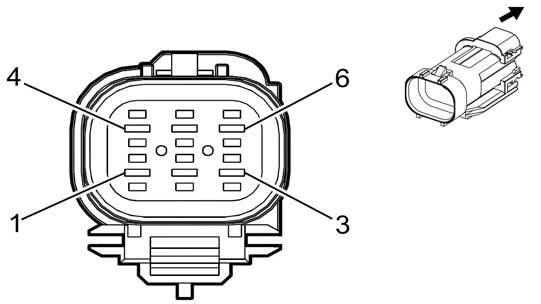


2042939

Connector Part Information

Harness Type: Accessory Power Fuse Block Rear Extension
OEM Connector: 10865192
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 2.8 Junior Power Timer Series, Sealed (BK)

Connector Part Information

Harness Type: Accessory Power Fuse Block Rear Extension
OEM Connector: 10865189
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way M 2.8 Series, Sealed (BK)

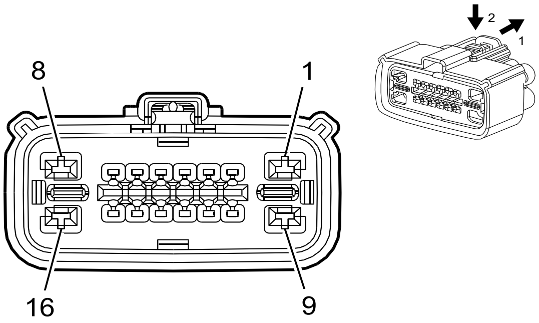
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X291 Accessory Power Fuse Block Rear Extension Harness to Accessory Power Fuse Block Rear Extension Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	2.5	D-GN/	6840	I	—	Auxiliary Device 2 Switched Voltage	1	2.5	D-GN/	6840	II	—
2	2.5	L-GN	6839	I	—	Auxiliary Device 1 Switched Voltage	2	2.5	L-GN	6839	II	—
3	0.5	D-BU/	6843	I	—	Auxiliary Device Relay 2 Control	3	0.5	D-BU/	6843	II	—
4	0.5	L-BU/	6842	I	—	Auxiliary Device Relay 1 Control	4	0.5	L-BU/	6842	II	—
5	1	RD/WH	5440	I	—	Battery Positive Voltage	5	1	RD/WH	5440	II	—
6	—	—	—	—	—	Not Occupied	6	—	—	—	—	—

X306 Body Harness to Passenger Seat Harness



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4283035

Connector Part Information

Harness Type: Body
OEM Connector: 33320906
Service Connector: 19368738
Description: 16-Way F 1.5, 2.8 Series, Sealed (YE)

Connector Part Information

Harness Type: Passenger Seat
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13576377	J-35616-35 (VT)	J-38125-12A	1326030-8	Lear 17	4	D
II	13578813	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
III	Not Available	No Tool Required	J-38125-215A	Not Available	Not Available	Not Available	Not Available
IV	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
V	Not Required	Not Available	No Tool Required	Not Required	Not Required	Not Required	Not Required

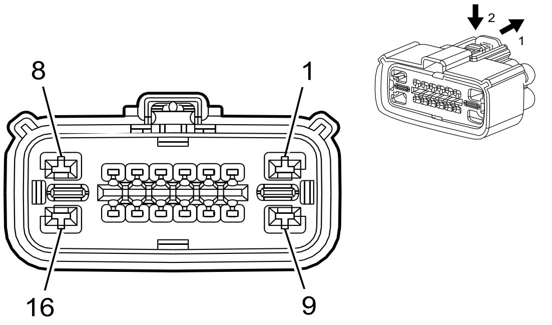
X306 Body Harness to Passenger Seat Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	3	BK	1850	I	—	Ground	1	3	BK	1850	IV	—
2	—	OG/	1362	III	—	Passenger Seat Belt Switch Signal	2	—	OG/	1362	V	—
3	—	L-BU/	1361	III	—	Passenger Seat Belt Switch Low Reference	3	—	PK/	1361	V	—
4	—	—	—	—	—	Not Occupied	4	—	—	—	—	—
5	0.5	L-GN	2116	II	—	Passenger Seat Belt Pretensioner High Control	5	0.5	L-GN	2116	IV	—
6	0.5	OG	2117	II	—	Passenger Seat Belt Pretensioner Low Control	6	0.5	OG	2117	IV	—

X306 Body Harness to Passenger Seat Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
7 - 8	—	—	—	—	—	Not Occupied	7 - 8	—	—	—	—	—
9	3	RD/ WH	3540	I	—	Battery Positive Voltage	9	3	RD/ WH	3540	IV	—
10	0.5	L-GN	2136	II	—	Right Front Side Impact Module Low Control	10	0.5	L-GN	2136	IV	—
11	0.5	TN/ WH	2135	II	—	Right Front Side Impact Module High Control	11	0.5	TN/ WH	2135	IV	—
12 - 16	—	—	—	—	—	Not Occupied	12 - 16	—	—	—	—	—

X307 Body Harness to Driver Seat Harness



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4283035

Connector Part Information

Harness Type: Body
OEM Connector: 33320906
Service Connector: 19368738
Description: 16-Way F 1.5, 2.8 Series, Sealed (YE)

Connector Part Information

Harness Type: Driver Seat
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way M

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13576377	J-35616-35 (VT)	J-38125-12A	1326030-8	Lear 17	4	D
II	13578813	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
III	19300432	J-35616-2A (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
IV	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

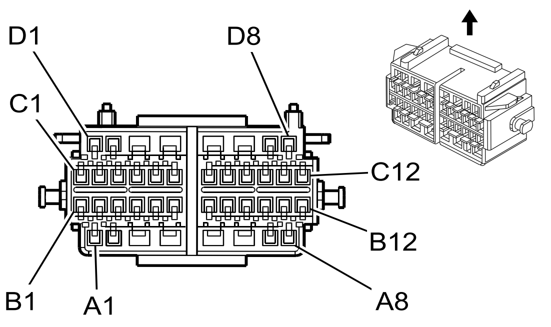
X307 Body Harness to Driver Seat Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	3	RD/WH	3540	I	—	Battery Positive Voltage	1	3	RD/WH	3540	IV	—
2	0.5	PK	5057	III	—	Seat Position Switch Low Reference	2	0.5	PK	5057	IV	—
3	0.5	TN/WH	238	III	—	Driver Seat Belt Switch Signal	3	0.5	TN/WH	238	IV	—
4	—	—	—	—	—	Not Occupied	4	—	—	—	—	—
5	0.5	TN/WH	2118	II	—	Driver Seat Belt Pretensioner High Control	5	0.5	TN/WH	2118	IV	—
6	0.5	OG/BK	2119	II	—	Driver Seat Belt Pretensioner Low Control	6	0.5	OG/BK	2119	IV	—
7 - 8	—	—	—	—	—	Not Occupied	7 - 8	—	—	—	—	—

X307 Body Harness to Driver Seat Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
9	3	BK	450	I	—	Ground	9	3	BK	450	IV	—
10	0.5	YE/ BK	2138	II	—	Left Front Side Impact Module Low Control	10	0.5	YE/ BK	2138	IV	—
11	0.5	BN	2137	II	—	Left Front Side Impact Module High Control	11	0.5	BN	2137	IV	—
12 - 16	—	—	—	—	—	Not Occupied	12 - 16	—	—	—	—	—

X318 Instrument Panel Harness to Body Harness



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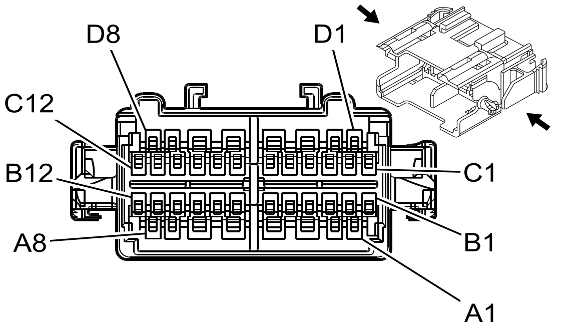


851471

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 15448130
Service Connector: 89046970
Description: 40-Way F 150, 280 GT Series (L-GY)

Connector Part Information

Harness Type: Body
OEM Connector: 15416977
Service Connector: 19331377
Description: 40-Way M 150, 280 GT Series (L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575479	J-35616-14 (GN)	J-38125-553	12191812	Delphi 19	E	C
II	13575735	J-35616-14 (GN)	J-38125-553	12191812	Delphi 19	C	A
III	13575735	J-35616-14 (GN)	J-38125-553	12191812	Delphi 19	E	C
IV	13575753	J-35616-4A (PU)	J-38125-553	15304711	Delphi 8	2	A
V	13575753	J-35616-4A (PU)	J-38125-553	15304711	Delphi 8	E	A
VI	13575500	J-35616-3 (GY)	J-38125-553	15304702	Delphi 19	E	C
VII	13575502	J-35616-3 (GY)	J-38125-553	15304702	Delphi 19	E	4
VIII	13575505	J-35616-5 (PU)	J-38125-553	15304722	Delphi 8	E	C
IX	13575507	J-35616-5 (PU)	J-38125-553	15304724	Delphi 8	2	A
X	13575511	J-35616-5 (PU)	J-38125-553	15304722	Delphi 8	E	C
XI	19177683	J-35616-3 (GY)	J-38125-553	15304702	Delphi 19	2	4

X318 Instrument Panel Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A1	0.8	OG	1853	II	—	Right Front Midrange Speaker Control (+)	A1	0.8	OG	1853	XI	—

X318 Instrument Panel Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A2	0.8	D-GN/	1953	II	—	Right Front Midrange Speaker (-) Low Reference	A2	0.8	D-GN/	1953	XI	—
A3	0.5	BK/WH	1751	V	—	Signal Ground	A3	0.5	BK/WH	1751	X	—
A4	0.5	TN/BK	371	V	—	Passenger IP Module Disable Switch Signal	A4	0.5	TN/BK	371	X	—
A5	0.5	BU/YE	6105	V	—	High Speed GMLAN Serial Data (+) 2	A5	0.5	BU/YE	6105	X	—
A6	0.5	WH	6106	V	—	High Speed GMLAN Serial Data (-) 2	A6	0.5	WH	6106	X	—
A7	1	RD/WH	440	II	—	Battery Positive Voltage	A7	1	RD/WH	440	XI	—
A8	0.35	YE/BK	1181	I	—	Right Rear Door Open Switch Signal	A8	0.35	YE/BK	1181	VI	—
B1	0.8	L-BU/	1320	II	—	CHMSL Control	B1	0.8	L-BU/	1320	XI	—
B2	—	—	—	—	—	Not Occupied	B2	—	—	—	—	—
B3	0.8	TN	1855	II	—	Right Rear Midrange Speaker Control (+)	B3	1	TN	1855	XI	—
B4	0.8	OG	1955	II	—	Right Rear Midrange Speaker (-) Low Reference	B4	1	OG	1955	XI	—
B5	—	—	—	—	—	Not Occupied	B5	—	—	—	—	—
B6	0.5	GN	5060	III	—	Low Speed GMLAN Serial Data	B6	0.5	GN	5060	VII	—
B7	0.5	D-BU/WH	6619	III	—	Middle Front Discriminating Sensor Low Reference	B7	0.5	D-BU/WH	6619	VII	—
B8	0.5	BN/WH	6618	III	—	Middle Front Discriminating Sensor Signal	B8	0.5	BN/WH	6618	VII	—
B9	0.35	WH	3152	I	—	Lane Departure Warning Indicator Control	B9	0.5	WH	3152	VII	—

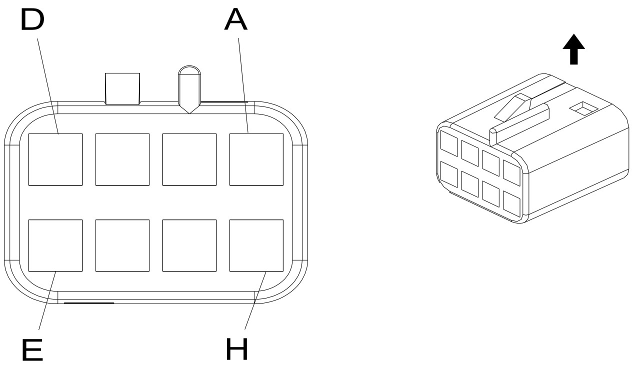
X318 Instrument Panel Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
B10	0.35	D-GN/	5060	I	—	Low Speed GMLAN Serial Data	B10	0.35	D-GN/	5060	VI	—
B11	0.35	D-GN/	6134	I	—	Local Interconnect Network Serial Data Bus 3	B11	0.35	D-GN/	6134	VI	—
B12	0.35	GY/WH	3153	I	—	Lane Departure Warning Disable Switch Signal	B12	0.5	GY/WH	3153	VII	—
C1	0.8	D-GN/	654	II	—	Cellular Telephone Microphone Low Reference	C1	0.8	D-GN/	654	XI	—
C2	0.35	PK	1139	I	—	Run/Crank Ignition 1 Voltage	C2	0.35	PK	1139	VI	—
C3	0.8	TN	1859	II	—	Left Rear Midrange Speaker Control (+)	C3	1	TN	1859	XI	—
C4	0.8	WH	1959	II	—	Left Rear Midrange Speaker (-) Low Reference	C4	1	WH	1959	XI	—
C5	0.8	GY	655	II	—	Cellular Telephone Microphone Signal	C5	0.8	GY	655	XI	—
C6	—	—	—	—	—	Not Occupied	C6	—	—	—	—	—
C7	0.35	L-GN/	5926	I	—	Rear Access Open Switch Signal	C7	0.35	L-GN/	5926	VI	—
C8	0.35	PK/BK	1303	I	—	Lift Gate Ajar Switch Signal 1	C8	0.35	PK/BK	1303	VI	—
C9	0.35	TN/WH	746	I	—	Right Front Door Ajar Switch Signal	C9	0.35	TN/WH	746	VI	—
C10	0.35	L-GN/	1177	I	—	Right Front Door Open Switch Signal	C10	0.35	L-GN/	1177	VI	—
C11	0.5	TN	126	III	—	Left Front Door Open Switch Signal	C11	0.35	TN	126	VI	—
C12	0.35	GY/BK	745	I	—	Left Front Door Ajar Switch Signal	C12	0.35	GY/BK	745	VI	—
D1	0.8	D-BU/	1857	II	—	Left Front Midrange Speaker Control (+)	D1	0.8	D-BU/	1857	XI	—

X318 Instrument Panel Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
D2	0.8	L-BU/	1957	II	—	Left Front Midrange Speaker (-) Low Reference	D2	0.8	L-BU/	1957	XI	—
D3	0.8 0.8	OG OG	1732 1732	IV IV	PRP -PRP	Electronic Control Unit 12V Reference 3 Electronic Control Unit 12V Reference 3	D3	0.8	OG	1732	IX	—
D4	0.5	PK	353	V	—	Passenger IP Module Suppression Indicator Control	D4	0.5	PK	353	X	—
D5	0.5	PK/ BK	780	V	—	Driver Door Lock Switch Lock Signal	D5	0.35	PK/ BK	780	VIII	—
D6	0.5 0.35	OG/ BK OG/ BK	781 781	V V	AU3 AU3+PRP	Driver Door Lock Switch Unlock Signal Driver Door Lock Switch Unlock Signal	D6	0.35	OG/ BK	781	VIII	AU3
D7	0.35	L-BU/	244	I	—	Passenger Door Lock Switch Lock Control	D7	0.35	L-BU/	244	VI	—
D8	0.35 0.35	OG/ BK D-BU/	781 245	I I	AU3+PRP AU3-PRP	Driver Door Lock Switch Unlock Signal Passenger Door Lock Switch Unlock Control	D8	0.35	D-BU/	245	VI	AU3

X319 Auxiliary Heater Front Harness to Body Harness



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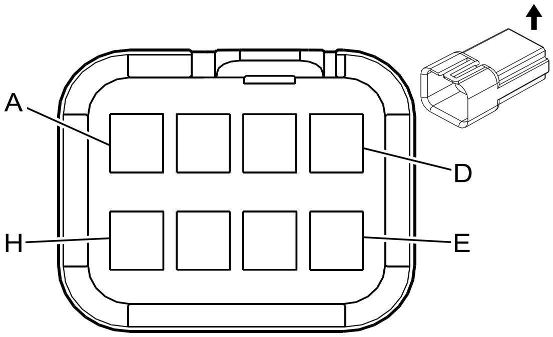

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Connector Part Information

- Harness Type: Auxiliary Heater Front
- OEM Connector: 12047886
- Service Connector: Service by Harness - See Part Catalog
- Description: 8-Way F 150 Metri-Pack Series (BK)

Connector Part Information

- Harness Type: Body
- OEM Connector: 12045688
- Service Connector: 13584253
- Description: 8-Way M 150 Metri-Pack Series (BK)

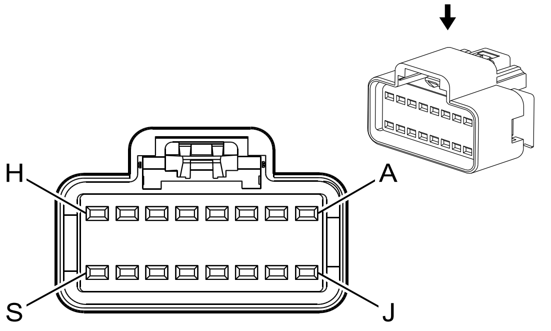
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X319 Auxiliary Heater Front Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.35	WH	1924	I	—	Auxiliary Blower Motor High Speed Control	A	0.35	WH	1924	II	—
B	0.35	OG	1925	I	—	Auxiliary Blower Motor Medium Speed Control	B	0.35	OG	1925	II	—
C	0.35	D-BU/	1926	I	—	Auxiliary Blower Motor Low Speed Control	C	0.35	D-BU/	1926	II	—
D	0.35	BN/WH	230	I	—	Instrument Panel Lamp Dimming Control	D	0.35	BN/WH	230	II	—
E	0.35	BK	450	I	—	Ground	E	0.35	BK	450	II	—
F - H	—	—	—	—	—	Not Occupied	F - H	—	—	—	—	—

X320 Upfitter Provision Harness to Body Harness



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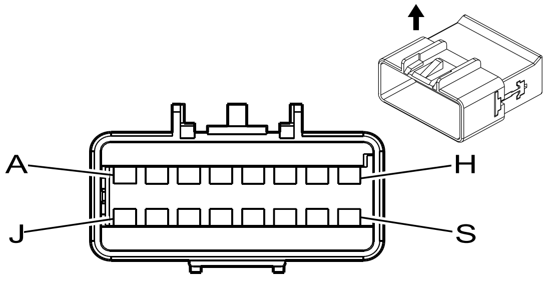


646377

Connector Part Information

Harness Type: Upfitter Provision
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 16-Way F

Connector Part Information

Harness Type: Body
OEM Connector: 13516907
Service Connector: 19153746
Description: 16-Way M 150 GT Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	13575502	J-35616-3 (GY)	J-38125-553	15304702	Delphi 19	E	4
III	19177683	J-35616-3 (GY)	J-38125-553	15304702	Delphi 19	2	4

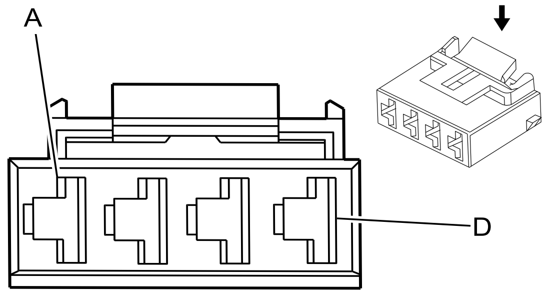
X320 Upfitter Provision Harness to Body Harness

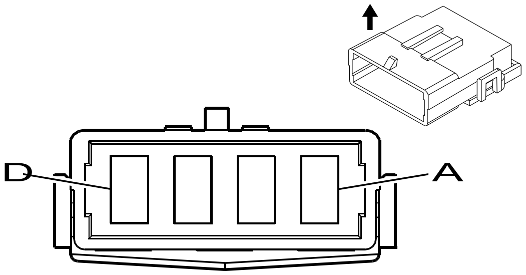
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	1	WH	1959	I	—	Left Rear Midrange Speaker (-) Low Reference	A	1	WH	1959	III	—
B	1	TN	1859	I	—	Left Rear Midrange Speaker Control (+)	B	1	TN	1859	III	—
C	1	OG	1955	I	—	Right Rear Midrange Speaker (-) Low Reference	C	1	OG	1955	III	—
D	1	TN	1855	I	—	Right Rear Midrange Speaker Control (+)	D	1	TN	1855	III	—
E - N	—	—	—	—	—	Not Occupied	E - N	—	—	—	—	—
P	0.5	BK	450	I	—	Ground	P	0.5	BK	450	II	—

X320 Upfitter Provision Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
R	0.5	D-BU/WH	149	I	—	Courtesy Lamp Control	R	0.5	D-BU/WH	149	II	—
S	0.5	BN	2209	I	—	Rear Park Lamp Control	S	0.5	BN	2209	II	—

X321 Upfitter Provision Harness to Body Harness





Connector Part Information

Harness Type: Upfitter Provision
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F

Connector Part Information

Harness Type: Body
OEM Connector: 12052623
Service Connector: 15306008
Description: 4-Way M 630 Metri-Pack Series (BK)

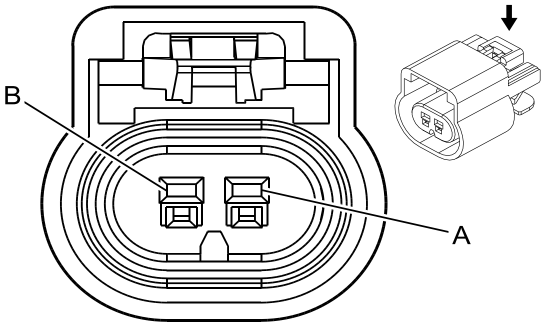
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-42 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-43 (RD)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X321 Upfitter Provision Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	5	RD/ BK	1042	I	—	Battery Positive Voltage	A	5	RD/ BK	1042	II	—
B	5	BN	541	I	—	Run Ignition 3 Voltage	B	5	BN	541	II	—
C	5	BK	450	I	—	Ground	C	5	BK	450	II	—
D	—	—	—	—	—	Not Occupied	D	—	—	—	—	—

X323 Air Bag Jumper Harness to Body Harness



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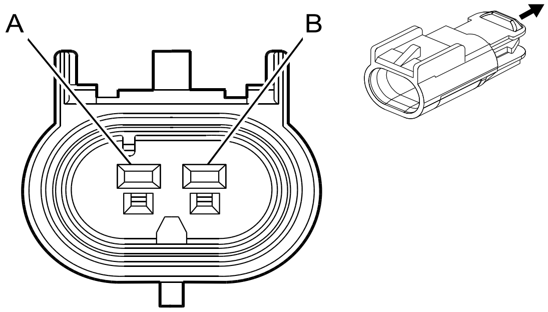

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Connector Part Information

Harness Type: Air Bag Jumper
OEM Connector: 13510085
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 GT Series, Sealed (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 13510099
Service Connector: 13580103
Description: 2-Way M 150 GT Series, Sealed (BK)

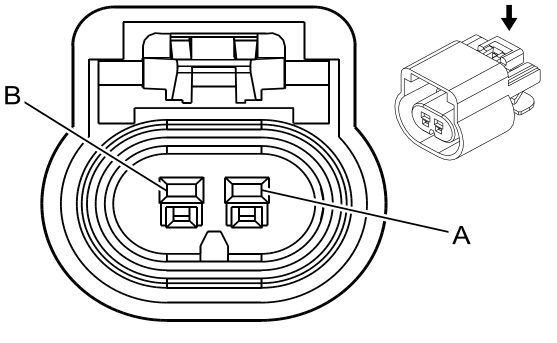
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X323 Air Bag Jumper Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	GY/ BK	6621	I	—	Left Middle Side Impact Sensing Module Low Reference	A	0.5	GY/ BK	6621	II	—
B	0.5	D-GN/ WH	6620	I	—	Left Middle Side Impact Sensing Module Signal	B	0.5	D-GN/ WH	6620	II	—

X324 Air Bag Jumper Harness to Body Harness



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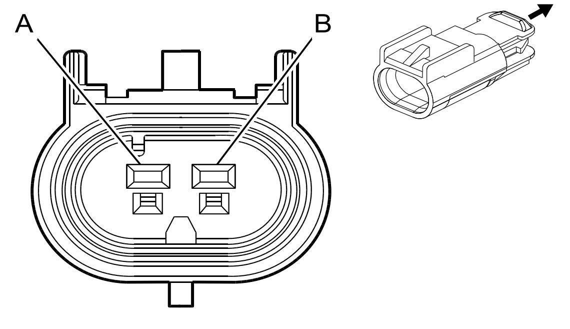


681875

Connector Part Information

Harness Type: Air Bag Jumper
OEM Connector: 13510085
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 GT Series, Sealed (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 13510099
Service Connector: 13580103
Description: 2-Way M 150 GT Series, Sealed (BK)

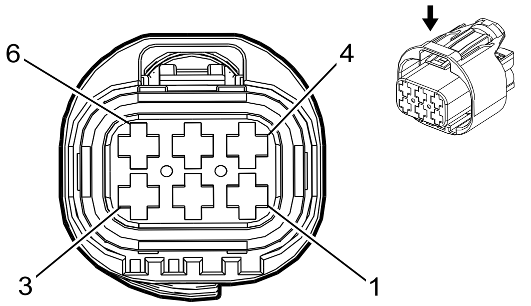
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X324 Air Bag Jumper Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	L-GN/ WH	6625	I	—	Right Middle Side Impact Sensing Module Low Reference	A	0.5	L-GN/ WH	6625	II	—
B	0.5	L-BU/ BK	6624	I	—	Right Middle Side Impact Sensing Module Signal	B	0.5	L-BU/ BK	6624	II	—

X328 Body Harness to Upfitter Jumper Harness



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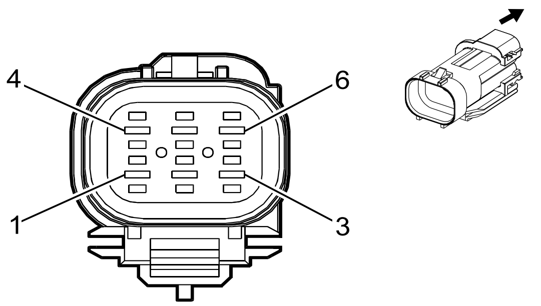


2042939

Connector Part Information

Harness Type: Body

OEM Connector: 10865192

Service Connector: 19332889

Description: 6-Way F 2.8 Junior Power Timer Series, Sealed (BK)

Connector Part Information

Harness Type: Body

OEM Connector: 10865189

Service Connector: 93185233

Description: 6-Way M 2.8 Series, Sealed (BK)

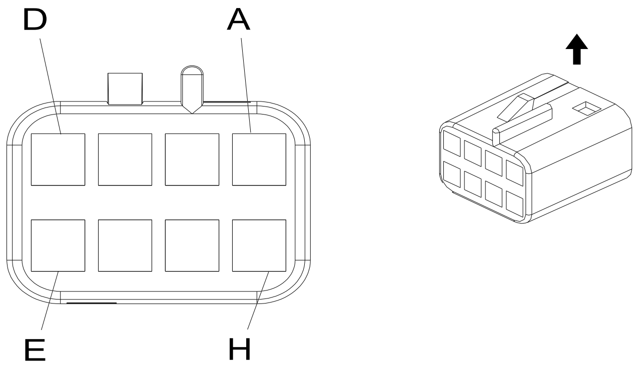
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X328 Body Harness to Upfitter Jumper Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	BN	6842	I	—	Auxiliary Device Relay 1 Control	1	0.5	BN	6842	II	—
2	0.5	BU/YE	6843	I	—	Auxiliary Device Relay 2 Control	2	0.5	BU/YE	6843	II	—
3	0.5	BK	450	I	—	Ground	3	0.5	BK	450	II	—
4	0.5	BK	450	I	—	Ground	4	0.5	BK	450	II	—
5 - 6	—	—	—	—	—	Not Occupied	5 - 6	—	—	—	—	—

X329 Instrument Panel Harness to Body Harness



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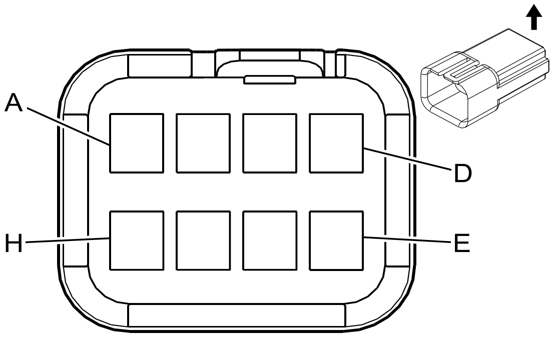


62434

Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 12047886
Service Connector: 13584485
Description: 8-Way F 150 Metri-Pack Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 12089526
Service Connector: 13584253
Description: 8-Way M 150 Metri-Pack Series (BK)

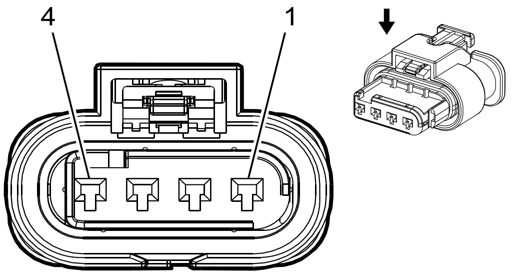
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X329 Instrument Panel Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A - C	—	—	—	—	—	Not Occupied	A - C	—	—	—	—	—
D	0.5	L-GN	24	I	—	Backup Lamp Control	D	0.5	L-GN	24	II	—
E	0.5	PK	239	I	—	Run/Crank Ignition 1 Voltage	E	0.5	PK	239	II	—
F	0.5	L-GN	24	I	—	Backup Lamp Control	F	0.5	L-GN	24	II	—
G - H	—	—	—	—	—	Not Occupied	G - H	—	—	—	—	—

X330 Body Harness to Body Harness



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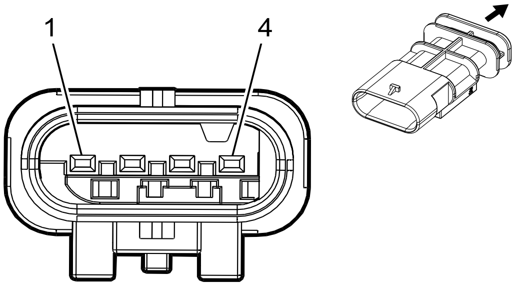


2684557

Connector Part Information

Harness Type: Body
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F

Connector Part Information

Harness Type: Body
OEM Connector: 13854529
Service Connector: 19299698
Description: 4-Way M 1.2 Series, Sealed (YE)

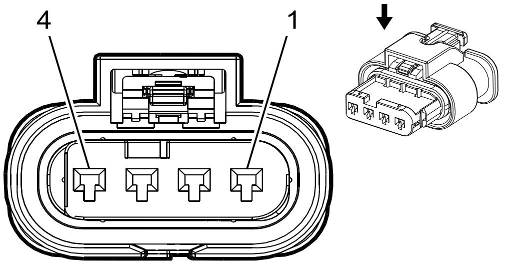
Terminal Part Information

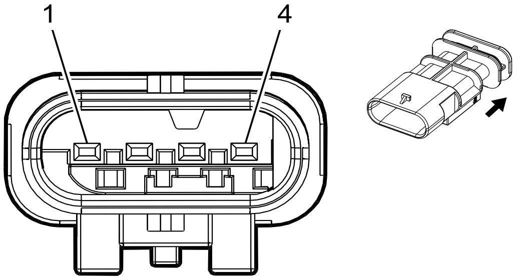
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-17 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X330 Body Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	TN	3021	I	—	Steering Wheel Module Stage 1 High Control	1	0.5	TN	3021	II	—
2	0.5	BN	3020	I	—	Steering Wheel Module Stage 1 Low Control	2	0.5	BN	3020	II	—
3 - 4	—	—	—	—	—	Not Occupied	3 - 4	—	—	—	—	—

X331 Instrument Panel Harness to Body Harness





Connector Part Information

Harness Type: Instrument Panel
OEM Connector: 13854532
Service Connector: 13586575
Description: 4-Way F 1.2 Series, Sealed (YE)

Connector Part Information

Harness Type: Body
OEM Connector: 13854530
Service Connector: 13586576
Description: 4-Way M 1.2 Series, Sealed (YE)

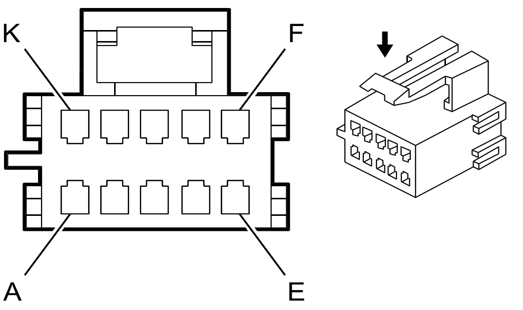
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-16 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-17 (LT GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X331 Instrument Panel Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	YE	3025	I	—	Passenger IP Module Stage 1 High Control	1	0.5	YE	3025	II	—
2	0.5	OG	3024	I	—	Passenger IP Module Stage 1 Low Control	2	0.5	OG	3024	II	—
3 - 4	—	—	—	—	—	Not Occupied	3 - 4	—	—	—	—	—

X400 Rear Cargo Door Harness to Body Harness



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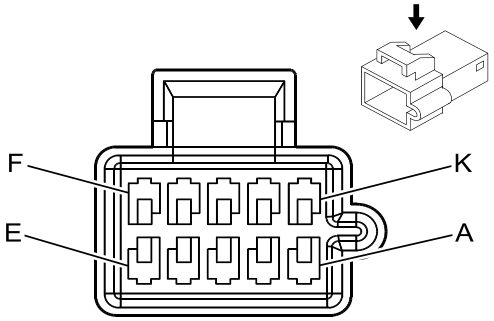


808703

Connector Part Information

Harness Type: Rear Cargo Door
OEM Connector: 15324054
Service Connector: Service by Harness - See Part Catalog
Description: 10-Way F 150 Metri-Pack Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 15324758
Service Connector: 19179279
Description: 10-Way M 150 Metri-Pack Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	13575462	J-35616-3 (GY)	J-38125-12A	12047581	Delphi 2	E	A
III	13575463	J-35616-3 (GY)	J-38125-12A	12047581	Delphi 2	E	C

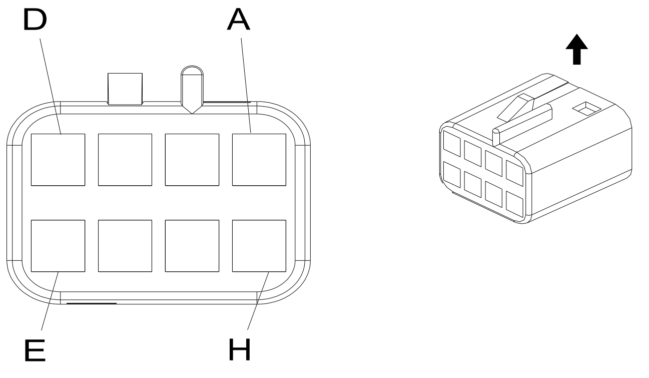
X400 Rear Cargo Door Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	1	TN	1855	I	—	Right Rear Midrange Speaker Control (+)	A	1	TN	1855	II	—
B	1	OG	1955	I	—	Right Rear Midrange Speaker (-) Low Reference	B	1	OG	1955	II	—
C	—	—	—	—	—	Not Occupied	C	—	—	—	—	—
D	0.35	BK/ WH	1051	I	—	Signal Ground	D	1	BK/ WH	1051	II	—
E	0.35	D-BU/	245	I	—	Passenger Door Lock Switch Unlock Control	E	0.35	D-BU/	245	III	—
F	1	GY	295	I	—	Door Lock Actuator Lock Control	F	1	GY	295	II	—

X400 Rear Cargo Door Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
G	1	TN/ BK	1095	I	—	Right Rear Door Lock Actuator Unlock Control	G	1	TN/ BK	1095	II	—
H	0.35	L-GN	5926	I	—	Rear Access Open Switch Signal	H	0.35	L-GN	5926	III	—
J	0.35	PK/ BK	1303	I	—	Lift Gate Ajar Switch Signal 1	J	0.35	PK/ BK	1303	III	—
K	0.35	L-BU	244	I	—	Passenger Door Lock Switch Lock Control	K	0.35	L-BU	244	III	—

X403 Rearview Camera Harness to Body Harness (5BV)



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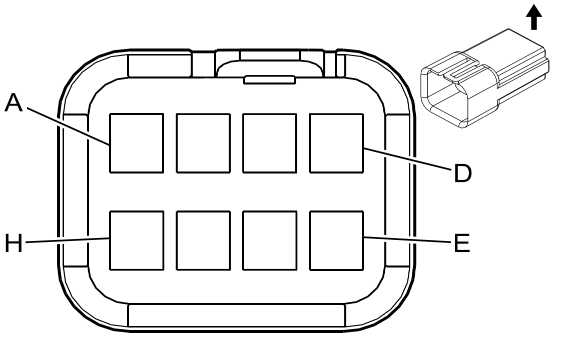


62434

Connector Part Information

Harness Type: Rearview Camera
OEM Connector: 12047886
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 150 Metri-Pack Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 12089526
Service Connector: 13584253
Description: 8-Way M 150 Metri-Pack Series (BK)

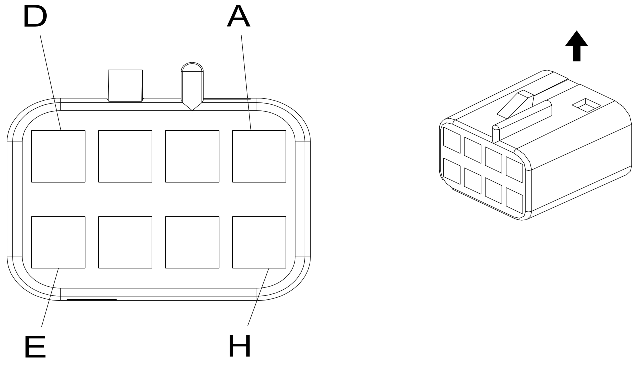
Terminal Part Information

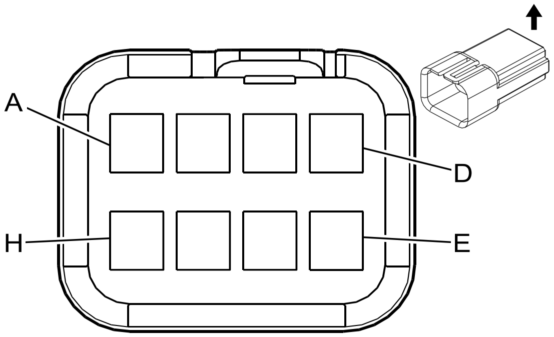
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X403 Rearview Camera Harness to Body Harness (5BV)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	WH	7641	I	—	Camera Rear Vision Signal +	A	0.5	BU	7641	II	—
B	0.5	L-BU	7642	I	—	Camera Rear Vision Signal (-)	B	0.5	L-BU	7642	II	—
C - D	—	—	—	—	—	Not Occupied	C - D	—	—	—	—	—
E	0.5	PK	239	I	—	Run/Crank Ignition 1 Voltage	E	0.5	PK	239	II	—
F	0.5	L-GN	24	I	—	Backup Lamp Control	F	0.5	L-GN	24	II	—
G	0.5	BK/ WH	351	I	—	Signal Ground	G	—	—	—	—	—
H	0.5	Bare	6799	I	—	Camera Shield Ground	H	0.5	Bare	6799	II	—

X403 Rearview Camera Harness to Body Harness (-5BV)





Connector Part Information

Harness Type: Rear Cargo Door
OEM Connector: 12047886
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F 150 Metri-Pack Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 12045688
Service Connector: 13584253
Description: 8-Way M 150 Metri-Pack Series (BK)

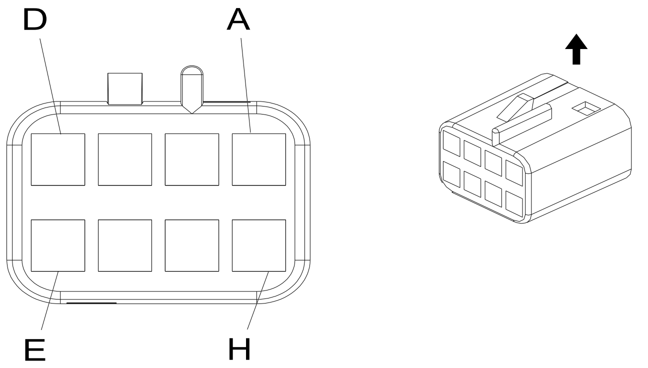
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X403 Rearview Camera Harness to Body Harness (-5BV)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	YE	7641	I	—	Camera Rear Vision Signal +	A	0.35	BU	7641	II	—
B	0.5	L-BU	7642	I	—	Camera Rear Vision Signal (-)	B	0.35	L-BU	7642	II	—
C	—	—	—	—	—	Not Occupied	C	—	—	—	—	—
D	0.5	BK	351	I	—	Signal Ground	D	—	—	—	—	—
E	0.5	PK	239	I	—	Run/Crank Ignition 1 Voltage	E	0.5	PK	239	II	—
F	0.5	L-GN	24	I	—	Backup Lamp Control	F	0.5	L-GN	24	II	—
G	—	—	—	—	—	Signal Ground	G	0.35	BK/WH	351	II	—
H	0.5	Bare	6799	I	—	Camera Shield Ground	H	0.35	Bare	6799	II	—

X403 Body Harness to Body Harness (CARGO)



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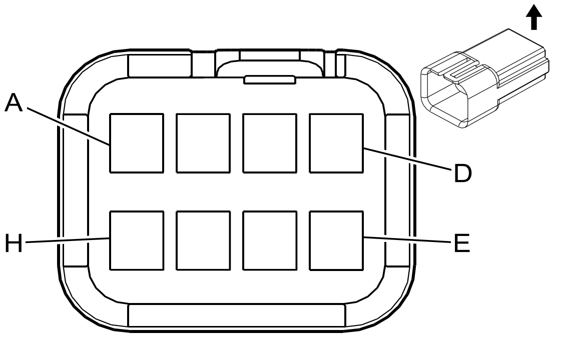


62434

Connector Part Information

Harness Type: Body
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F

Connector Part Information

Harness Type: Body
OEM Connector: 12089526
Service Connector: 13584253
Description: 8-Way M 150 Metri-Pack Series (BK)

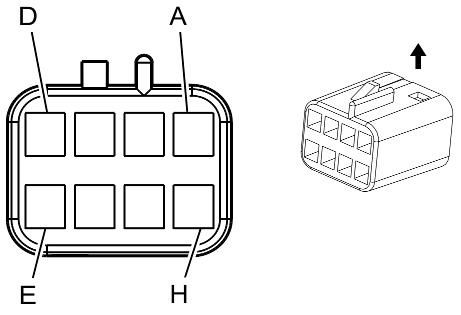
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X403 Body Harness to Body Harness (CARGO)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	BU	7641	I	—	Camera Rear Vision Signal +	A	0.5	BU	7641	II	—
B	0.5	L-BU	7642	I	—	Camera Rear Vision Signal (-)	B	0.5	L-BU	7642	II	—
C	—	—	—	—	—	Not Occupied	C	—	—	—	—	—
D	0.35	BK/ WH	351	I	—	Signal Ground	D	0.35	BK/ WH	351	II	—
E	0.5	PK	239	I	—	Run/Crank Ignition 1 Voltage	E	0.5	PK	239	II	—
F	0.5	L-GN	24	I	—	Backup Lamp Control	F	0.5	L-GN	24	II	—
G	—	—	—	—	—	Not Occupied	G	—	—	—	—	—
H	0.5	Bare	6799	I	—	Camera Shield Ground	H	0.5	Bare	6799	II	—

X403 Body Harness to Body Harness (PASSENGER)



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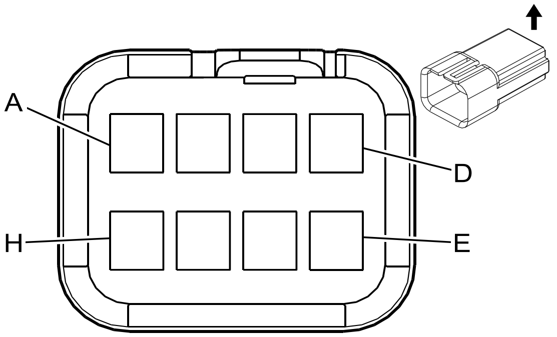


62434

Connector Part Information

Harness Type: Body
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 8-Way F

Connector Part Information

Harness Type: Body
OEM Connector: 12045688
Service Connector: 13584253
Description: 8-Way M 150 Metri-Pack Series (BK)

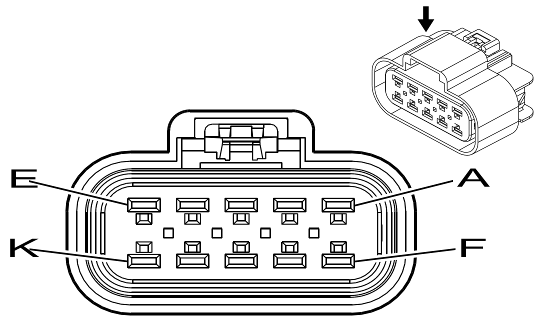
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X403 Body Harness to Body Harness (PASSENGER)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	BU	7641	I	—	Camera Rear Vision Signal +	A	0.5	BU	7641	II	—
B	0.5	BU	7642	I	—	Camera Rear Vision Signal (-)	B	0.5	BU	7642	II	—
C	—	—	—	—	—	Not Occupied	C	—	—	—	—	—
D	0.35	BK/ WH	351	I	—	Signal Ground	D	0.35	BK/ WH	351	II	—
E	0.5	PK	239	I	—	Run/Crank Ignition 1 Voltage	E	0.5	PK	239	II	—
F	0.5	L-GN	24	I	—	Backup Lamp Control	F	0.5	L-GN	24	II	—
G	—	—	—	—	—	Not Occupied	G	—	—	—	—	—
H	0.5	Bare	6799	I	—	Camera Shield Ground	H	0.5	Bare	6799	II	—

X405 Cutaway Rear Lighting Connector to Chassis Harness



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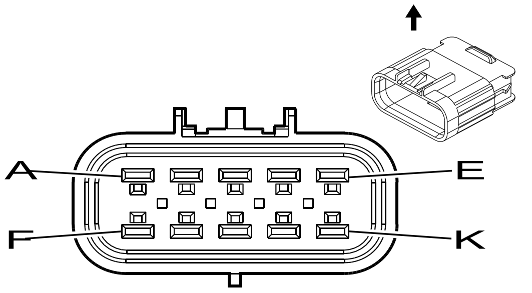


655819

Connector Part Information

Harness Type: Chassis
OEM Connector: 15326660
Service Connector: 88986262
Description: 10-Way F 280 GT Series, Sealed (BK)

Connector Part Information

Harness Type: Chassis
OEM Connector: 15326661
Service Connector: 88986245
Description: 10-Way M 280 GT Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13576356	J-35616-4A (PU)	J-38125-553	15304719	Delphi 19	2	5
II	13576356	J-35616-4A (PU)	J-38125-553	Not Available	Not Available	Not Available	Not Available
III	13575443	J-35616-5 (PU)	J-38125-553	Not Available	Not Available	Not Available	Not Available
IV	13580826	J-35616-5 (PU)	J-38125-553	15304731	Delphi 19	2	5
V	13580826	J-35616-5 (PU)	J-38125-553	15304731	Delphi 19	C	5
VI	19368626	J-35616-5 (PU)	J-38125-553	Not Available	Not Available	Not Available	Not Available

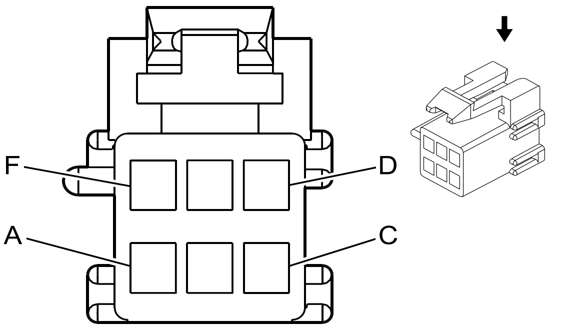
X405 Cutaway Rear Lighting Connector to Chassis Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A - B	—	—	—	—	—	Not Occupied	A - B	—	—	—	—	—
C	1 0.8	L-BU/ L-BU/	1320 1320	II I	5H4 CUTAWAY	CHMSL Control CHMSL Control	C	1 0.8	BU BU	1320 1320	IV V	5H4 CUTAWAY
D	1	YE	618	II	—	Left Rear Turn Signal Lamp Control	D	1	YE	618	IV	—
E	1	D-GN/	619	II	—	Right Rear Turn Signal Lamp Control	E	1 1	GN GN	619 619	IV VI	V4D+UY7 (-V4D/UY7)/(V4D-UY7)/(UY7-V4D)
F	1	BN	2109	II	—	Trailer Park Lamp Control	F	1	BN	2109	IV	—

X405 Cutaway Rear Lighting Connector to Chassis Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
G	1	BK	150	II	5H4	Ground	G	3	BK	150	III	—
H	1	WH	1624	II	—	Trailer Backup Lamp Control	H	1	GN	1624	IV	—
J	—	—	—	—	—	Not Occupied	J	—	—	—	—	—
K	0.8	BU/ WH	149	I	—	Courtesy Lamp Control	K	0.8	BU/ WH	149	V	—

X407 Auxiliary HVAC Harness to Body Harness



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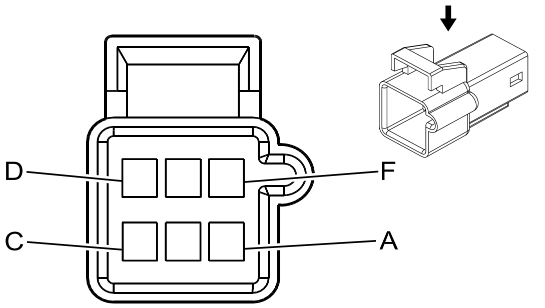


40425

Connector Part Information

Harness Type: Auxiliary HVAC
OEM Connector: 12064762
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 150 Metri-Pack Series (GY)

Connector Part Information

Harness Type: Body
OEM Connector: 12064763
Service Connector: 12101876
Description: 6-Way M 150 Metri-Pack Series (GY)

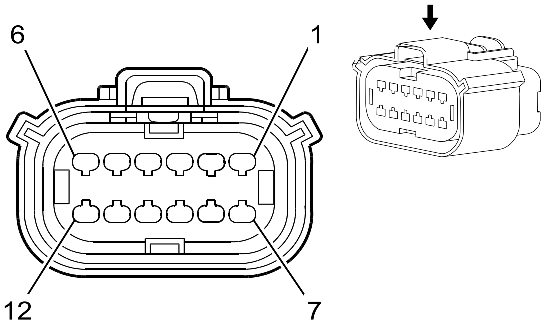
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X407 Auxiliary HVAC Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.35	OG	2775	I	—	Rear Air Temperature Motor Control	A	0.35	OG	2775	II	—
B	0.35	D-BU/	1926	I	—	Auxiliary Blower Motor Low Speed Control	B	0.35	D-BU/	1926	II	—
C	0.35	WH	1924	I	—	Auxiliary Blower Motor High Speed Control	C	0.35	WH	1924	II	—
D	0.35	OG	1925	I	—	Auxiliary Blower Motor Medium Speed Control	D	0.35	OG	1925	II	—
E	0.35	BN	341	I	—	Run Ignition 3 Voltage	E	0.35	BN	341	II	—
F	0.35	GY	2599	I	—	Rear Mode Motor Signal	F	0.35	GY	2599	II	—

X408 Rear Bumper Harness to Chassis Harness



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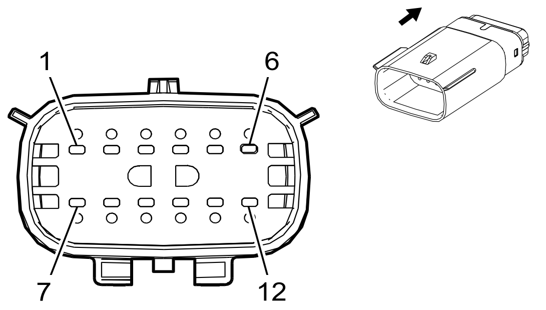


2424959

Connector Part Information

Harness Type: Rear Fascia
OEM Connector: 13653762
Service Connector: Service by Harness - See Part Catalog
Description: 12-Way F 1.5 Series, Sealed (BK)

Connector Part Information

Harness Type: Chassis
OEM Connector: 13534850
Service Connector: 19369242
Description: 12-Way M 150 MX Series, Sealed (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	19119395	J-35616-3 (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
III	19119440	J-35616-3 (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available

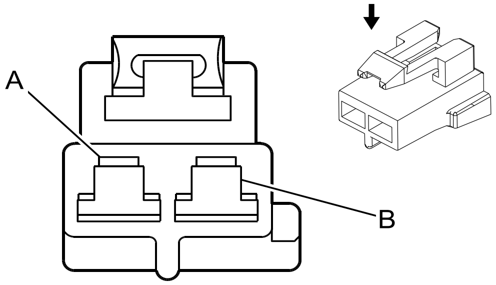
X408 Rear Bumper Harness to Chassis Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.5	YE/WH	2377	I	—	Right Rear Middle Object Sensor Signal	1	0.5 0.5	YE/WH YE/WH	2377 2377	II III	LWN -LWN
2	0.5	YE/VT	2378	I	—	Right Rear Corner Object Sensor Signal	2	0.5 0.5	YE/VT YE/VT	2378 2378	II III	LWN -LWN
3	0.5	BK/GY	2379	I	—	Object Sensor Low Reference	3	0.5 0.5	BK/GY BK/GY	2379 2379	II III	LWN -LWN
4	0.5	BN/WH	2374	I	—	Object Sensor Control	4	0.5 0.5	BN/WH BN/WH	2374 2374	II III	LWN -LWN
5	0.5	YE	2375	I	—	Left Rear Corner Object Sensor Signal	5	0.5 0.5	YE YE	2375 2375	II III	LWN -LWN

X408 Rear Bumper Harness to Chassis Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
6	0.5	YE/D-BU	2376	I	—	Left Rear Middle Object Sensor Signal	6	0.5 0.5	YE/D-BU YE/D-BU	2376 2376	II III	LWN -LWN
7	0.5	BK	2150	I	—	Ground	7	0.5	BK	2150	II	—
8	0.5	L-GN/	5060	I	—	Low Speed GMLAN Serial Data	8	0.5	L-GN/	5060	III	—
9	—	—	—	—	—	Not Occupied	9	—	—	—	—	—
10	0.5	GY/YE	5853	I	—	Driver Side Object Detection LED Signal 1	10	0.5	GY/YE	5853	III	—
11	0.5	GY	5861	I	—	Passenger Side Object Detection LED Signal 1	11	0.5	GY	5861	III	—
12	0.5	RD/L-GN	3140	I	—	Battery Positive Voltage	12	0.5	RD/L-GN	3140	II	—

X409 Auxiliary HVAC Harness to Body Harness



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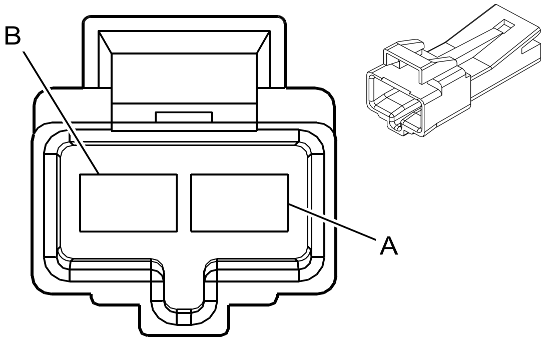


38284

Connector Part Information

Harness Type: Auxiliary HVAC
OEM Connector: 12064749
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 480 Metri-Pack Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 12064750
Service Connector: 19368866
Description: 2-Way M 480 Metri-Pack Series (BK)

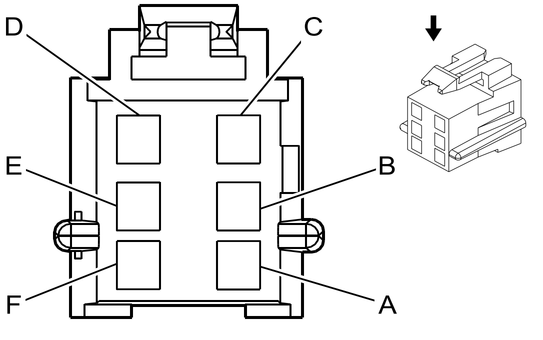
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-40 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-41 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X409 Auxiliary HVAC Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	5	RD/ WH	1740	I	—	Battery Positive Voltage	A	5	RD/ WH	1740	II	—
B	5	BK	850	I	C69	Ground	B	5 5	BK BK	450 850	II II	ENC C36/C69

X410 Left Rear Lamp Harness to Body Harness



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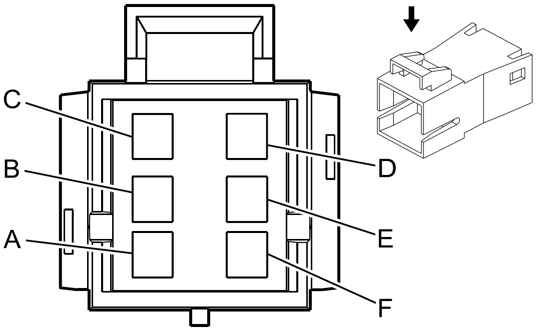


39689

Connector Part Information

Harness Type: Left Rear Lamp
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F

Connector Part Information

Harness Type: Body
OEM Connector: 12064754
Service Connector: 19368739
Description: 6-Way M 280 Metri-Pack Series (BK)

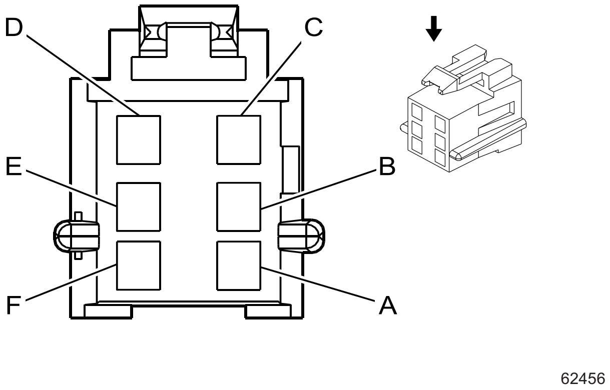
Terminal Part Information

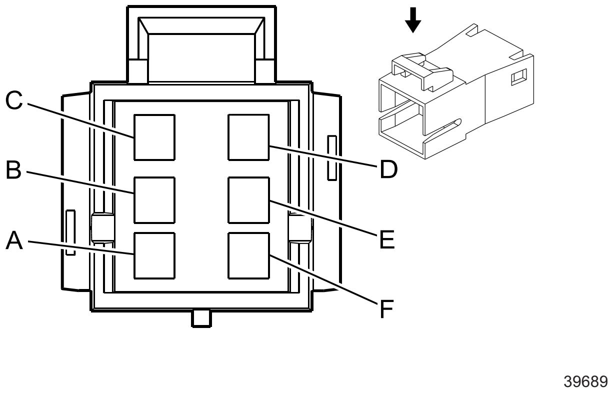
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X410 Left Rear Lamp Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	BN	2509	I	—	Left Rear Park Lamp Control	A	0.5	BN	2509	II	—
B	1	YE	618	I	—	Left Rear Turn Signal Lamp Control	B	1	YE	618	II	—
C	—	—	—	—	—	Not Occupied	C	—	—	—	—	—
D	0.8	BK	850	I	—	Ground	D	0.8	BK	850	II	—
E	—	—	—	—	—	Not Occupied	E	—	—	—	—	—
F	0.8	L-GN	24	I	—	Backup Lamp Control	F	0.8	L-GN	24	II	—

X411 Left Rear Cargo Door Harness to Body Harness





Connector Part Information

Harness Type: Left Rear Cargo Door
OEM Connector: 12064752
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F 280 Metri-Pack Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 12064754
Service Connector: 19368739
Description: 6-Way M 280 Metri-Pack Series (BK)

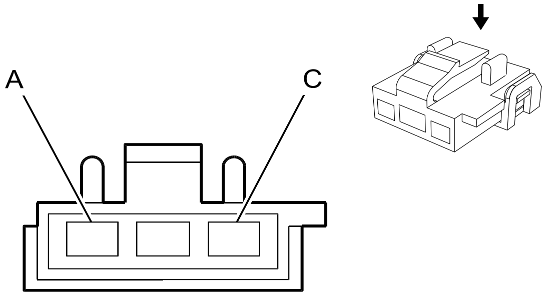
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X411 Left Rear Cargo Door Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	1	TN	1859	I	—	Left Rear Midrange Speaker Control (+)	A	1	TN	1859	II	—
B	1	WH	1959	I	—	Left Rear Midrange Speaker (-) Low Reference	B	1	WH	1959	II	—
C	—	—	—	—	—	Not Occupied	C	—	—	—	—	—
D	5	PU/	293	I	—	Rear Defog Element Control	D	5	PU/	293	II	—
E	3	BK	850	I	—	Ground	E	3	BK	850	II	—
F	—	—	—	—	—	Not Occupied	F	—	—	—	—	—

X412 Rear Cargo Door Harness to Body Harness



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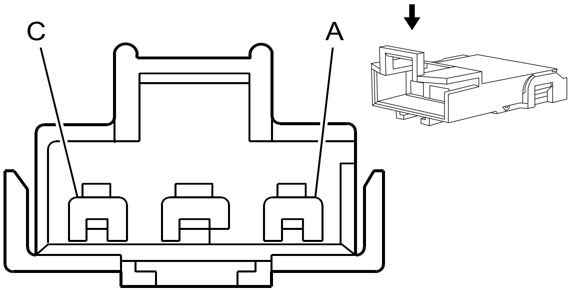


1884161

Connector Part Information

Harness Type: Rear Cargo Door
OEM Connector: 12020014
Service Connector: Service by Harness - See Part Catalog
Description: 3-Way F Weather Pack Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 12045681
Service Connector: 19368884
Description: 3-Way M 280, 480 Metri-Pack Series (BK)

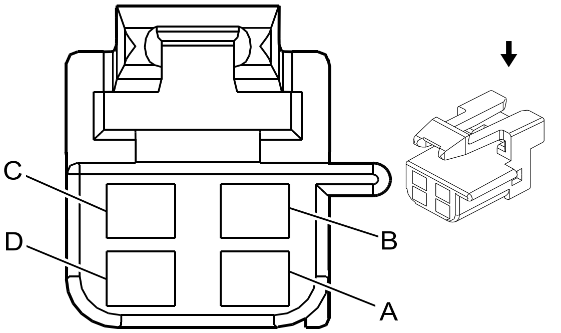
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-40 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	Not Required	J-35616-41 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
IV	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X412 Rear Cargo Door Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	BN	2509	II	—	Left Rear Park Lamp Control	A	0.5	BN	2509	IV	—
B	5	PU/	293	I	—	Rear Defog Element Control	B	5	PU/	293	III	—
C	3 0.5	BK BK	1050 1050	II II	C49 -C49	Ground Ground	C	3	BK	1050	IV	—

X415 Rear Speaker Harness to Body Harness



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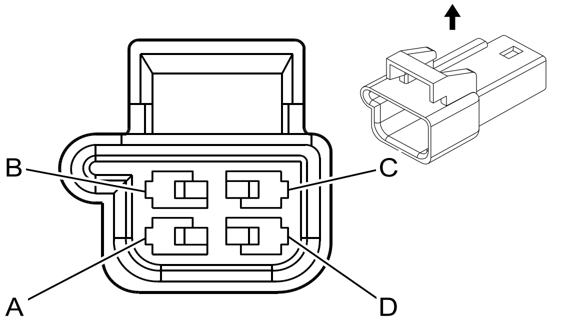


40399

Connector Part Information

Harness Type: Rear Speaker
OEM Connector: 12064760
Service Connector: Service by Harness - See Part Catalog
Description: 4-Way F 150 Metri-Pack Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 12065658
Service Connector: 19368719
Description: 4-Way M 150 Metri-Pack Series (BK)

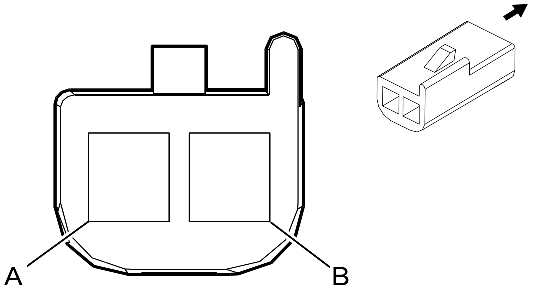
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X415 Rear Speaker Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	1	WH	1959	I	—	Left Rear Midrange Speaker (-) Low Reference	A	1	WH	1959	II	—
B	1	TN	1859	I	—	Left Rear Midrange Speaker Control (+)	B	1	TN	1859	II	—
C	1	OG	1955	I	—	Right Rear Midrange Speaker (-) Low Reference	C	1	OG	1955	II	—
D	1	TN	1855	I	—	Right Rear Midrange Speaker Control (+)	D	1	TN	1855	II	—

X419 Center High Mounted Stop Lamp Harness to Body Harness



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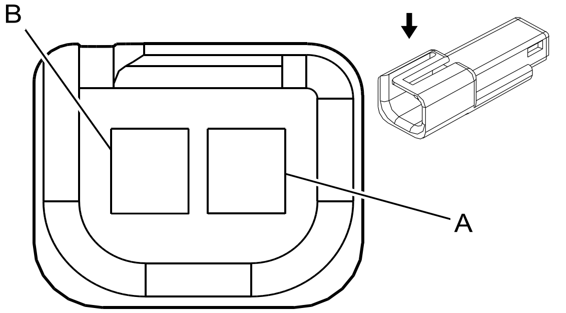


1664595

Connector Part Information

Harness Type: Center High Mounted Stop Lamp
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F

Connector Part Information

Harness Type: Body
OEM Connector: 12048457
Service Connector: 13584278
Description: 2-Way M 150 Metri-Pack Series (BK)

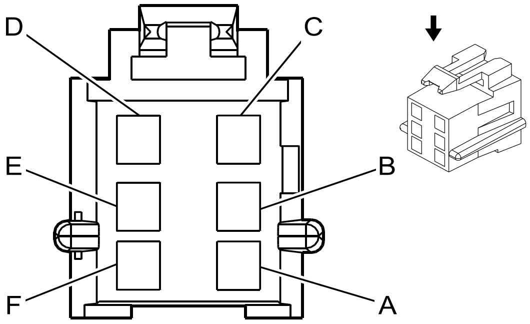
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X419 Center High Mounted Stop Lamp Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.8	L-BU	1320	I	—	CHMSL Control	A	0.8	L-BU	1320	II	—
B	0.8	BK	850	I	—	Ground	B	0.8	BK	850	II	—

X420 Right Rear Lamp Harness to Body Harness



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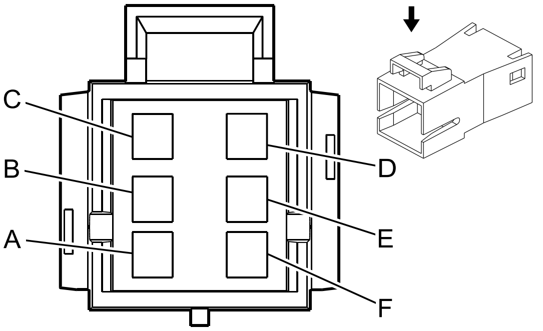


39689

Connector Part Information

Harness Type: Right Rear Lamp
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 6-Way F

Connector Part Information

Harness Type: Body
OEM Connector: 12064754
Service Connector: 19368739
Description: 6-Way M 280 Metri-Pack Series (BK)

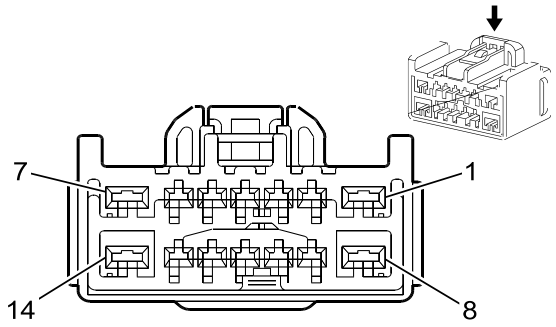
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-5 (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X420 Right Rear Lamp Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	BN	2609	I	—	Right Rear Park Lamp Control	A	0.5	BN	2609	II	—
B	1	D-GN	619	I	—	Right Rear Turn Signal Lamp Control	B	1	D-GN	619	II	—
C	—	—	—	—	—	Not Occupied	C	—	—	—	—	—
D	0.8	BK	1050	I	—	Ground	D	0.8	BK	1050	II	—
E	—	—	—	—	—	Not Occupied	E	—	—	—	—	—
F	0.8	L-GN	24	I	—	Backup Lamp Control	F	0.8	L-GN	24	II	—

X421 Body Harness to Headliner Harness



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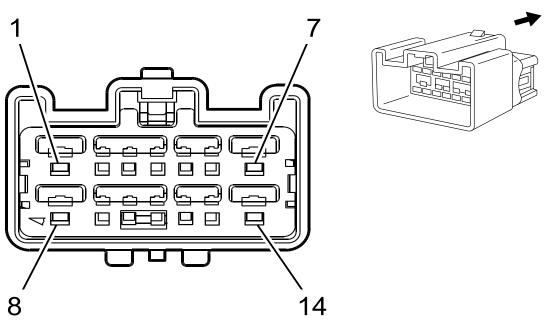


1283905

Connector Part Information

Harness Type: Body
OEM Connector: 10847017
Service Connector: 88956524
Description: 14-Way F 1.5, 2.8 Series (L-GY)

Connector Part Information

Harness Type: Headliner
OEM Connector: 10846900
Service Connector: 88956523
Description: 14-Way M 1.5, 2.8 Series (L-GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	13575832	J-35616-4A (PU)	J-38125-11A	7116-4112-02	Yazaki 9	C	D
II	13575839	J-35616-35 (VT)	J-38125-11A	7116-4111-02	Yazaki 9	E	A
III	13575850	J-35616-14 (GN)	J-38125-557	Not Available	Not Available	Not Available	Not Available
IV	13575850	J-35616-2A (GY)	J-38125-11A	Not Available	Not Available	Not Available	Not Available
V	13575823	J-35616-5 (PU)	J-38125-11A	7114-4111-02	Yazaki 9	E	A
VI	13575824	J-35616-5 (PU)	J-38125-11A	7114-4112-02	Yazaki 9	C	D
VII	19119395	J-35616-3 (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
VIII	19119780	J-35616-3 (GY)	J-38125-12A	Not Available	Not Available	Not Available	Not Available
IX	19119842	J-35616-3 (GY)	J-38125-217	Not Available	Not Available	Not Available	Not Available
X	19369740	J-35616-5 (PU)	J-38125-212	1326029-8	Lear 17	A	4

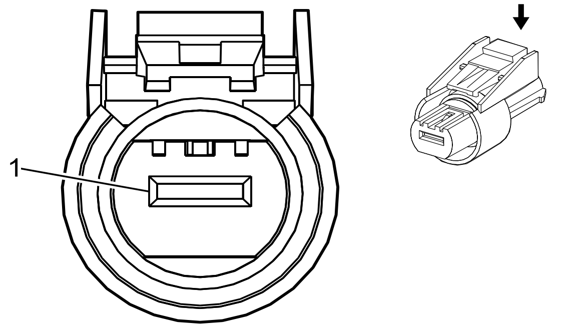
X421 Body Harness to Headliner Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	0.8	D-BU/WH	149	II	—	Courtesy Lamp Control	1	0.8	D-BU/WH	149	V	—
2	0.35	BN/WH	230	IV	—	Instrument Panel Lamp Dimming Control	2	0.35	BN/WH	230	IX	—

X421 Body Harness to Headliner Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
3	0.5	WH	1924	IV	—	Auxiliary Blower Motor High Speed Control	3	0.5	WH	1924	VII	—
4	0.5	OG	1925	IV	—	Auxiliary Blower Motor Medium Speed Control	4	0.5	OG	1925	VII	—
5	0.5	D-BU/	1926	IV	—	Auxiliary Blower Motor Low Speed Control	5	0.5	D-BU/	1926	VII	—
6	0.35	BN	341	IV	—	Run Ignition 3 Voltage	6	0.35	BN	341	IX	—
7	3	BN	541	I	—	Run Ignition 3 Voltage	7	2	BN	541	X	—
8	0.8	D-BU/WH	149	II	—	Courtesy Lamp Control	8	0.8	D-BU/WH	149	V	—
9	0.5	BN	5263	IV	—	Dual Logic Module Rear Temperature Signal	9	0.5	BN	5263	VII	—
10	0.8	OG	1732	III	—	Electronic Control Unit 12V Reference 3	10	0.8	OG	1732	VIII	—
11	0.5	PU/WH	5264	IV	—	Dual Logic Module Rear Mode Signal	11	0.5	PU/WH	5264	VII	—
12	0.5	PK/BK	5265	IV	—	Dual Logic Module Rear Control Signal	12	0.5	PK/BK	5265	VII	—
13	0.8	BK	1050	III	—	Ground	13	0.8	BK	1050	VIII	—
14	3	BK	1050	I	—	Ground	14	2	BK	1050	VI	—

X460 Chassis Harness to Trailer Provision Harness



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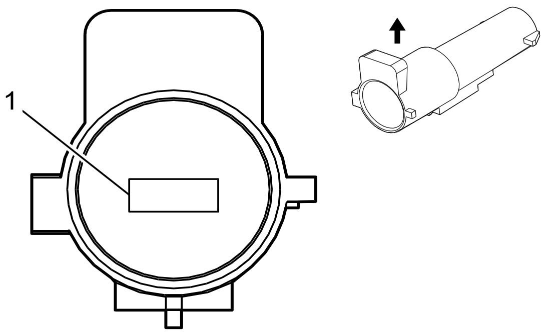

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Connector Part Information

Harness Type: Chassis
OEM Connector: 15326120
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way F 800 Metri-Pack Series, Sealed (BK)

Connector Part Information

Harness Type: Chassis
OEM Connector: 15326119
Service Connector: Service by Harness - See Part Catalog
Description: 1-Way M 800 Metri-Pack Series, Sealed (BK)

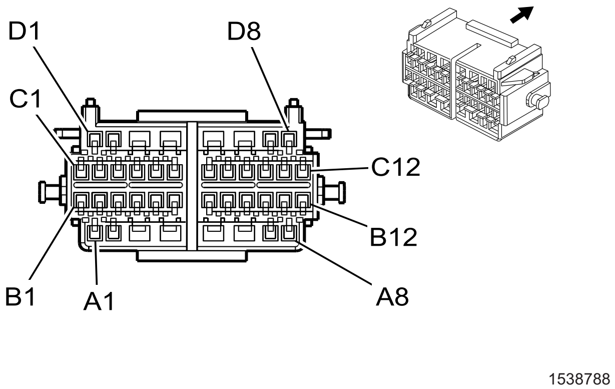
Terminal Part Information

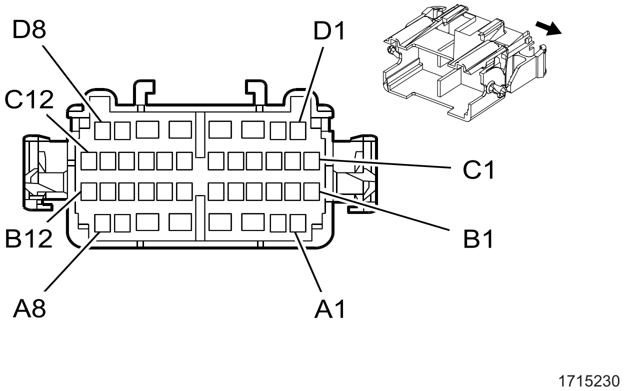
Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-44 (YE)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-45 (YE)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X460 Chassis Harness to Trailer Provision Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
1	8	WH	22	I	—	Trailer Ground	1	8	WH	22	II	—

X500 Driver Door Harness to Body Harness





Connector Part Information

Harness Type: Driver Door
OEM Connector: 15448129
Service Connector: Service by Harness - See Part Catalog
Description: 40-Way F 150, 280 GT Series (BK)

Connector Part Information

Harness Type: Body
OEM Connector: 15416976
Service Connector: 89047197
Description: 40-Way M 150, 280 GT Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Available	No Tool Required	Not Available	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
IV	13575500	J-35616-3 (GY)	J-38125-553	15304702	Delphi 19	E	C
V	13575502	J-35616-3 (GY)	J-38125-553	15304702	Delphi 19	E	4
VI	13575505	J-35616-5 (PU)	J-38125-553	15304722	Delphi 8	E	C
VII	13575510	J-35616-5 (PU)	J-38125-553	15304724	Delphi 8	A	D
VIII	19177683	J-35616-3 (GY)	J-38125-553	15304702	Delphi 19	2	4
IX	—	—	—	Not Available	Not Available	Not Available	Not Available

X500 Driver Door Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A1	0.35	TN	126	II	—	Left Front Door Open Switch Signal	A1	0.35	TN	126	IV	—
A2 - A4	—	—	—	—	—	Not Occupied	A2 - A4	—	—	—	—	—

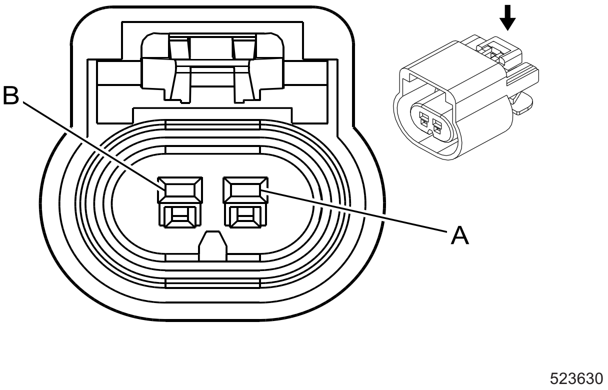
X500 Driver Door Harness to Body Harness (cont'd)

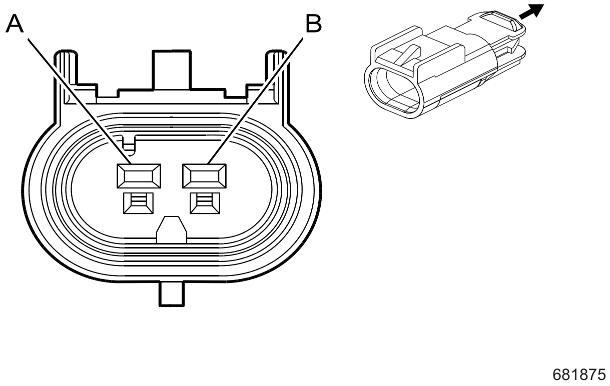
Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A5	3 0.35	BK BK	450 450	III III	AU3+A31/DEB/DEE/DE5 AU3-A31-DEB-DEE-DE5	Ground Ground	A5	3	BK	450	VII	—
A6	0.35	BN/WH	230	III	—	Instrument Panel Lamp Dimming Control	A6	0.35	BN/WH	230	VI	—
A7	0.8	OG	2267	II	—	Mirror Heating Element Control	A7	0.8	OG	2267	VIII	—
A8	0.35	PU/WH	889	II	—	Right Mirror Motor Down Control	A8	0.5	PU/WH	889	V	—
B1	0.35	OG/BK	781	II	—	Driver Door Lock Switch Unlock Signal	B1	0.35	OG/BK	781	IV	—
B2	0.35	PK/BK	780	II	—	Driver Door Lock Switch Lock Signal	B2	0.35	PK/BK	780	IV	—
B3	0.35	GY/BK	745	II	—	Left Front Door Ajar Switch Signal	B3	0.35	GY/BK	745	IV	—
B4	0.35	BK	450	II	—	Ground	B4	0.35	BK	450	IV	—
B5 - B6	—	—	—	—	—	Not Occupied	B5 - B6	—	—	—	—	—
B7	0.8	TN	694	II	—	Driver Door Lock Actuator Unlock Control	B7	0.8	TN	694	VIII	—
B8	0.8	GY	295	II	—	Door Lock Actuator Lock Control	B8	0.8	GY	295	VIII	—
B9 - B11	—	—	—	—	—	Not Occupied	B9 - B11	—	—	—	—	—
B12	0.8	D-BU	1857	II	—	Left Front Midrange Speaker Control (+)	B12	0.8	D-BU	1857	VIII	—
C1	0.5	PU/WH	6628	II	—	Left Front Side Impact Sensing Module Low Reference	C1	0.5	PU/WH	6628	V	—
C2	0.5	WH	2132	II	—	Left Front Side Impact Sensing Module Signal	C2	0.5	WH	2132	V	—
C3 - C6	—	—	—	—	—	Not Occupied	C3 - C6	—	—	—	—	—

X500 Driver Door Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
C7	0.5 0.5	GY/YE L-BU/WH	5853 1314	I II	UFT -UFT	Driver Side Object Detection LED Signal 1 Left Front Turn Signal Lamp Control	C7	0.5 0.5	GY/YE L-BU/WH	5853 1314	IX V	UFT -UFT
C8	0.5	RD/WH	4340	II	—	Battery Positive Voltage	C8	0.5	RD/WH	4340	V	—
C9 - C1-1	—	—	—	—	—	Not Occupied	C9 - C1-1	—	—	—	—	—
C1-2	0.8	L-BU	1957	II	—	Left Front Midrange Speaker (-) Low Reference	C1-2	0.8	L-BU	1957	VIII	—
D1 - D3	—	—	—	—	—	Not Occupied	D1 - D3	—	—	—	—	—
D4	3	TN	167	III	—	Power Window Master Switch Right Front Down Signal	D4	3	TN	167	VII	—
D5	3	L-BU/	166	III	—	Power Window Master Switch Right Front Up Signal	D5	3	L-BU/	166	VII	—
D6	3	D-GN/	1001	III	—	Retained Accessory Power Ignition	D6	3	D-GN/	1001	VII	—
D7	0.35	BN/WH	1498	II	—	Right Mirror Motor Up Control	D7	0.5	BN/WH	1498	V	—
D8	0.35	OG/WH	881	II	—	Right Mirror Motor Right Control	D8	0.5	OG/WH	881	V	—

X501 Air Bag Jumper Harness to Driver Door Harness





Connector Part Information

Harness Type: Air Bag Jumper
OEM Connector: 13510085
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 150 GT Series, Sealed (BK)

Connector Part Information

Harness Type: Driver Door
OEM Connector: 13510099
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 150 GT Series, Sealed (BK)

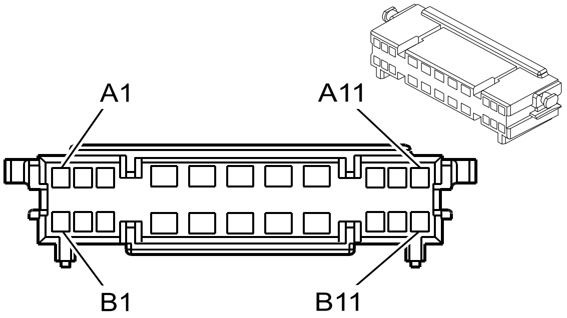
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X501 Air Bag Jumper Harness to Driver Door Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	PU/ WH	6628	I	—	Left Front Side Impact Sensing Module Low Reference	A	0.5	PU/ WH	6628	II	—
B	0.5	WH	2132	I	—	Left Front Side Impact Sensing Module Signal	B	0.5	WH	2132	II	—

X600 Passenger Door Harness to Body Harness



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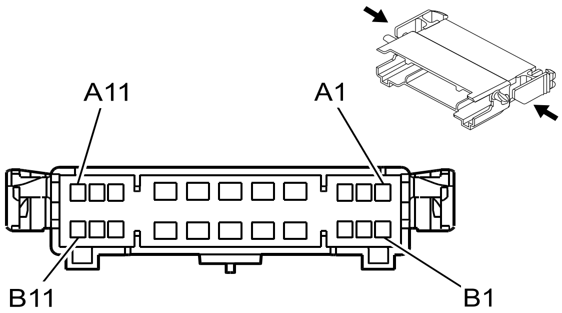


524211

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 15326063
Service Connector: Service by Harness - See Part Catalog
Description: 22-Way F 150, 280 GT Series (GY)

Connector Part Information

Harness Type: Body
OEM Connector: 15326064
Service Connector: 15326064
Description: 22-Way M 150, 280 GT Series (GY)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Available	No Tool Required	Not Available	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-14 (GN)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	Not Required	J-35616-4A (PU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
IV	13575500	J-35616-3 (GY)	J-38125-553	15304702	Delphi 19	E	C
V	13575502	J-35616-3 (GY)	J-38125-553	15304702	Delphi 19	E	4
VI	13575505	J-35616-5 (PU)	J-38125-553	15304722	Delphi 8	E	C
VII	13575507	J-35616-5 (PU)	J-38125-553	15304724	Delphi 8	2	A
VIII	13575510	J-35616-5 (PU)	J-38125-553	15304724	Delphi 8	A	D
IX	13575511	J-35616-5 (PU)	J-38125-553	15304722	Delphi 8	E	C
X	19177683	J-35616-3 (GY)	J-38125-553	15304702	Delphi 19	2	4
XI	—	—	—	Not Available	Not Available	Not Available	Not Available

X600 Passenger Door Harness to Body Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A1	0.8	OG	1853	II	—	Right Front Midrange Speaker Control (+)	A1	0.8	OG	1853	X	—

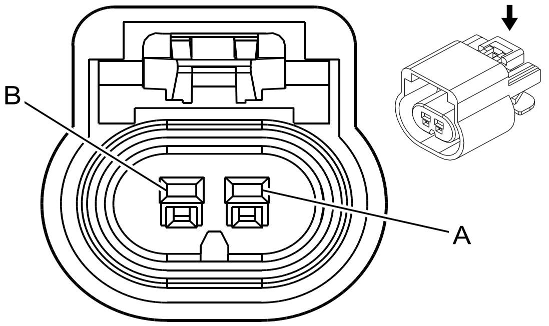
X600 Passenger Door Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A2	0.8	TN	294	II	—	Door Lock Actuator Unlock Control	A2	0.8	TN	294	X	—
A3	0.8	OG	2267	II	—	Mirror Heating Element Control	A3	0.8	OG	2267	X	—
A4	3	L-BU	166	III	—	Power Window Master Switch Right Front Up Signal	A4	3	L-BU	166	VIII	—
A5	0.8 0.35	BK BK	1850 1850	III III	AU3+A31/DEB/DEE/DE5/UFT AU3-A31-DEB-DEE-DE5	Ground Ground	A5	0.8	BK	1850	VII	—
A6	0.35	BN/WH	1498	III	—	Right Mirror Motor Up Control	A6	0.5	BN/WH	1498	IX	—
A7	0.35	OG/WH	881	III	—	Right Mirror Motor Right Control	A7	0.5	OG/WH	881	IX	—
A8	0.35	TN/WH	746	III	—	Right Front Door Ajar Switch Signal	A8	0.35	TN/WH	746	VI	—
A9	0.35	BK	1850	II	—	Ground	A9	0.35	BK	1850	IV	—
A10	0.5	D-GN	2134	II	—	Right Front Side Impact Sensing Module Signal	A10	0.5	D-GN	2134	V	—
A11	0.35	L-BU	244	II	—	Passenger Door Lock Switch Lock Control	A11	0.35	L-BU	244	IV	—
B1	0.8	D-GN	1953	II	—	Right Front Midrange Speaker (-) Low Reference	B1	0.8	D-GN	1953	X	—
B2	0.8	GY	295	II	—	Door Lock Actuator Lock Control	B2	0.8	GY	295	X	—
B3	0.5 0.5	GY D-BU/WH	5861 1315	I II	UFT -UFT	Passenger Side Object Detection LED Signal 1 Right Front Turn Signal Lamp Control	B3	0.5 0.5	GY D-BU/WH	5861 1315	XI V	UFT -UFT
B4	3	TN	167	III	—	Power Window Master Switch Right Front Down Signal	B4	3	TN	167	VIII	—

X600 Passenger Door Harness to Body Harness (cont'd)

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
B5	3	D-GN/	1001	III	—	Retained Accessory Power Ignition	B5	3	D-GN/	1001	VIII	—
B6	0.35	BN/WH	230	III	—	Instrument Panel Lamp Dimming Control	B6	0.35	BN/WH	230	VI	—
B7	0.35	PU/WH	889	III	—	Right Mirror Motor Down Control	B7	0.5	PU/WH	889	IX	—
B8	0.35	L-GN/	1177	III	—	Right Front Door Open Switch Signal	B8	0.35	L-GN/	1177	VI	—
B9	—	—	—	—	—	Not Occupied	B9	—	—	—	—	—
B10	0.5	WH/BK	6629	II	—	Right Front Side Impact Sensing Module Low Reference	B10	0.5	WH/BK	6629	V	—
B11	0.35	D-BU	245	II	—	Passenger Door Lock Switch Unlock Control	B11	0.35	D-BU	245	IV	—

X601 Air Bag Jumper Harness to Passenger Door Harness



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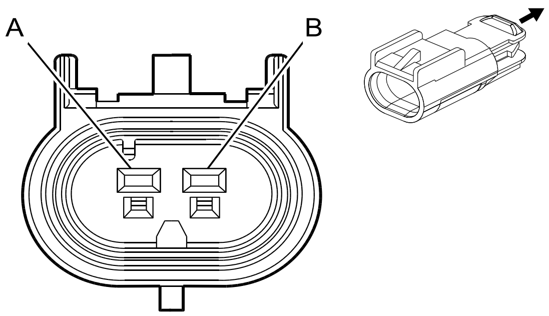


681875

Connector Part Information

Harness Type: Air Bag Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F

Connector Part Information

Harness Type: Passenger Door
OEM Connector: 13510099
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 150 GT Series, Sealed (BK)

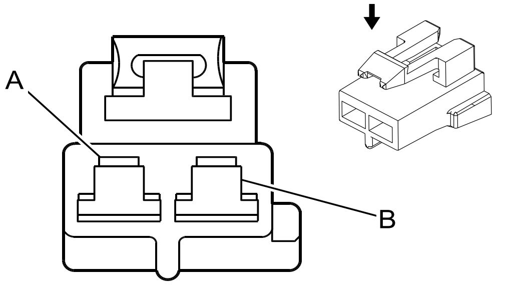
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-2A (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-3 (GY)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X601 Air Bag Jumper Harness to Passenger Door Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	0.5	VT/ WH	6629	I	—	Right Front Side Impact Sensing Module Low Reference	A	0.5	WH/ BK	6629	II	—
B	0.5	WH/	2134	I	—	Right Front Side Impact Sensing Module Signal	B	0.5	D-GN	2134	II	—

X901 Defogger Jumper Harness to Left Rear Cargo Door Harness



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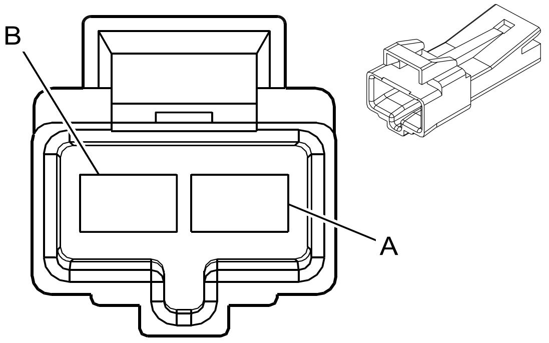


38284

Connector Part Information

Harness Type: Rear Window Defogger
OEM Connector: 12064749
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F 480 Metri-Pack Series (BK)

Connector Part Information

Harness Type: Left Rear Cargo Door
OEM Connector: 12064750
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 480 Metri-Pack Series (BK)

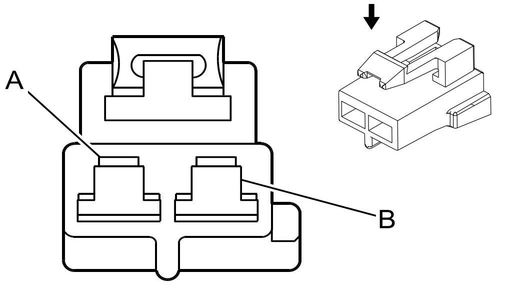
Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-40 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-40 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	Not Required	J-35616-41 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X901 Defogger Jumper Harness to Left Rear Cargo Door Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	5	PU/	293	I	—	Rear Defog Element Control	A	5	PU/	293	III	—
B	3	BK	850	I	—	Ground	B	3	BK	850	II	—

X902 Defogger Jumper Harness to Right Rear Cargo Door Harness



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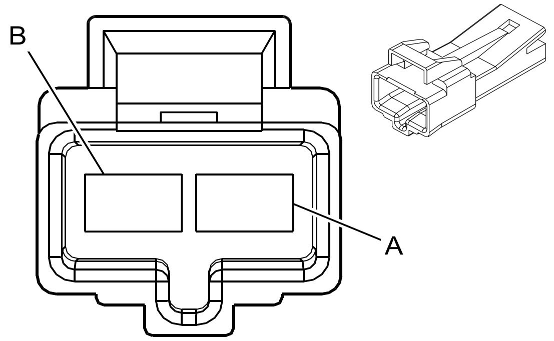

38284

Connector Part Information

Harness Type: Defogger Jumper
OEM Connector: Not Available
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way F

Connector Part Information

Harness Type: Rear Cargo Door
OEM Connector: 12064750
Service Connector: Service by Harness - See Part Catalog
Description: 2-Way M 480 Metri-Pack Series (BK)

Terminal Part Information

Terminal Type ID	Terminated Lead	Diagnostic Test Probe	Terminal Removal Tool	Service Terminal	Tray Name	Core Crimp	Insulation Crimp
I	Not Required	J-35616-41 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
II	Not Required	J-35616-40 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required
III	Not Required	J-35616-41 (BU)	No Tool Required	Not Required	Not Required	Not Required	Not Required

X902 Defogger Jumper Harness to Right Rear Cargo Door Harness

Pin	Size	Color	Circuit	Terminal Type ID	Option	Function	Pin	Size	Color	Circuit	Terminal Type ID	Option
A	5	PU/	293	I	—	Rear Defog Element Control	A	5	PU/	293	III	—
B	3	BK	1050	I	—	Ground	B	3	BK	1050	II	—

Wiring Systems and Power Management

Description and Operation

Power Mode Description and Operation

Serial Data Power Mode Master

Power to many of this vehicles circuits is controlled by the module that is designated the power mode master (PMM). This vehicles PMM is the body control module (BCM). The BCM has multiple B+ circuits that feed into it. Each of those circuits are partitioned within the controller to drive certain outputs of the vehicle's body functions. An open or short in any one of the B+ circuits may induce multiple codes/or a section of non-functionality within the BCM with the rest of the BCM functioning normally. In this case it is usefull to refer to the power distribution schematics to determine if the non-functional partition of the controller shares a common B+ circuit. The ignition switch is a low current switch with multiple discrete ignition switch signals to the PMM for determination of the power mode that will be sent over the serial data circuits to the other modules that need this information. The PMM will also activate relays and other direct outputs of the PMM as needed. The PMM determines which power mode (Off, Accessory, Run, Crank Request) is required, and reports this information to other modules via serial data. Modules which have switched voltage inputs may operate in a default mode if the PMM serial data message does not match what the individual module can see from its own connections.

The PMM receives ignition switch signals to identify the operators desired power mode. The PMM Power Mode Parameters table below illustrates the correct state of these input parameters (circuits) in correspondence to the ignition switch position:

PMM Power Mode Parameters

Ignition Switch Position	Power Mode Transmitted	Ign. Off / Run / Crank (Run Crank Ignition 1 Voltage Circuit)	Ignition Accessory / Run (Accessory Voltage Circuit)	Ignition Run / Crank (Ignition 1 Voltage Circuit)
Off Key Out	Off	Key Out/ACC	Inactive	Inactive
Off Key IN	Off	Key In/Off	Inactive	Inactive
Accessory	Accessory	Key Out/ACC	Active	Inactive
Run	Run	Run	Active	Active
Start	Crank Request	Crank	Inactive	Active

Relay Controlled Power Mode

The body control module (BCM) uses the discrete ignition switch inputs Run/Crank Ignition 1 Voltage, Accessory Voltage, and Ignition 1 Voltage, to distinguish the correct power mode. The BCM, after determining the desired power mode, will activate the appropriate relays for that power mode.

The RAP relay remains on for a timed period after the Ignition key is removed. Refer to *Retained Accessory Power Description and Operation on page 6-668* for more information on the retained accessory power (RAP) function.

BCM Awake/Sleep States

The body control module (BCM) is able to control or perform all of the BCM functions in the awake state. The BCM enters the sleep state when active control or normal monitoring of system functions has stopped and a time limit has passed. The BCM must detect certain wake-up inputs before entering the awake state. The BCM monitors for these inputs during the sleep state.

The BCM will enter the awake state if any of the following wake-up inputs are detected:

- Activity on the serial data line
- Detection of a battery reconnect
- Any door open signal
- Headlamps ON
- Key-in-ignition
- Ignition ON
- Park lamps ON
- Keyless entry or remote start message

The BCM will enter a sleep state when all of the following conditions exist:

- The ignition switch is OFF, key out.
- No activity exists on the serial data line.
- No outputs are commanded.
- No delay timers are actively counting.
- No wake-up inputs are present.

If all these conditions are met, the BCM will enter a low power or sleep condition.

Retained Accessory Power Description and Operation

Retained Accessory Power (RAP)

The retained accessory power (RAP) system allows specific vehicle functions to operate for a specific amount of time after the ignition switch is turned OFF. The BCM monitors the ignition switch position, battery condition, and each door ajar/open switch status to determine whether RAP should be initiated or terminated. RAP is controlled with 2 different methods; serial data and relay control. Some modules receive a RAP message over the serial data circuits. Serial data controlled RAP is deactivated as required by their modules RAP power mode operation. Other subsystems are activated directly by the BCM through a RAP relay. Components and systems that are active in RAP are also activated anytime the ignition is any position other than OFF regardless of the door switch signals. The RAP relay is located in the body fuse block, is grounded at G302, and is controlled by the rap relay coil control circuit from the BCM.

Relay Controlled RAP

The BCM keeps the RAP relay energized during all power modes, except Off-Awake and Crank. The relay is also energized for approximately 10 minutes after shutting the ignition OFF and removing the key, providing no door is opened.

Relay controlled RAP will end when one of the following conditions is met:

- The BCM receives an input from any door ajar switch indicating the opening of any door after the ignition key is out of the ignition.

Important: If the BCM is receiving any door ajar signal from those switches when the ignition key is turned OFF, RAP will not initiate.

- The BCM internal timer for the RAP expires after approximately 10 minutes.
- The BCM detects a decrease in battery capacity below a prescribed limit.

The power window system is powered by the RAP relay during the retained accessory power (RAP) power mode.

Serial Data Controlled RAP

RAP systems controlled by serial data are as follows:

Radio

Radio RAP activation/termination is the same as relay operation with 1 exception; the only door switch that will turn off the radio during RAP is the driver door open switch.

Section 7

Safety and Security

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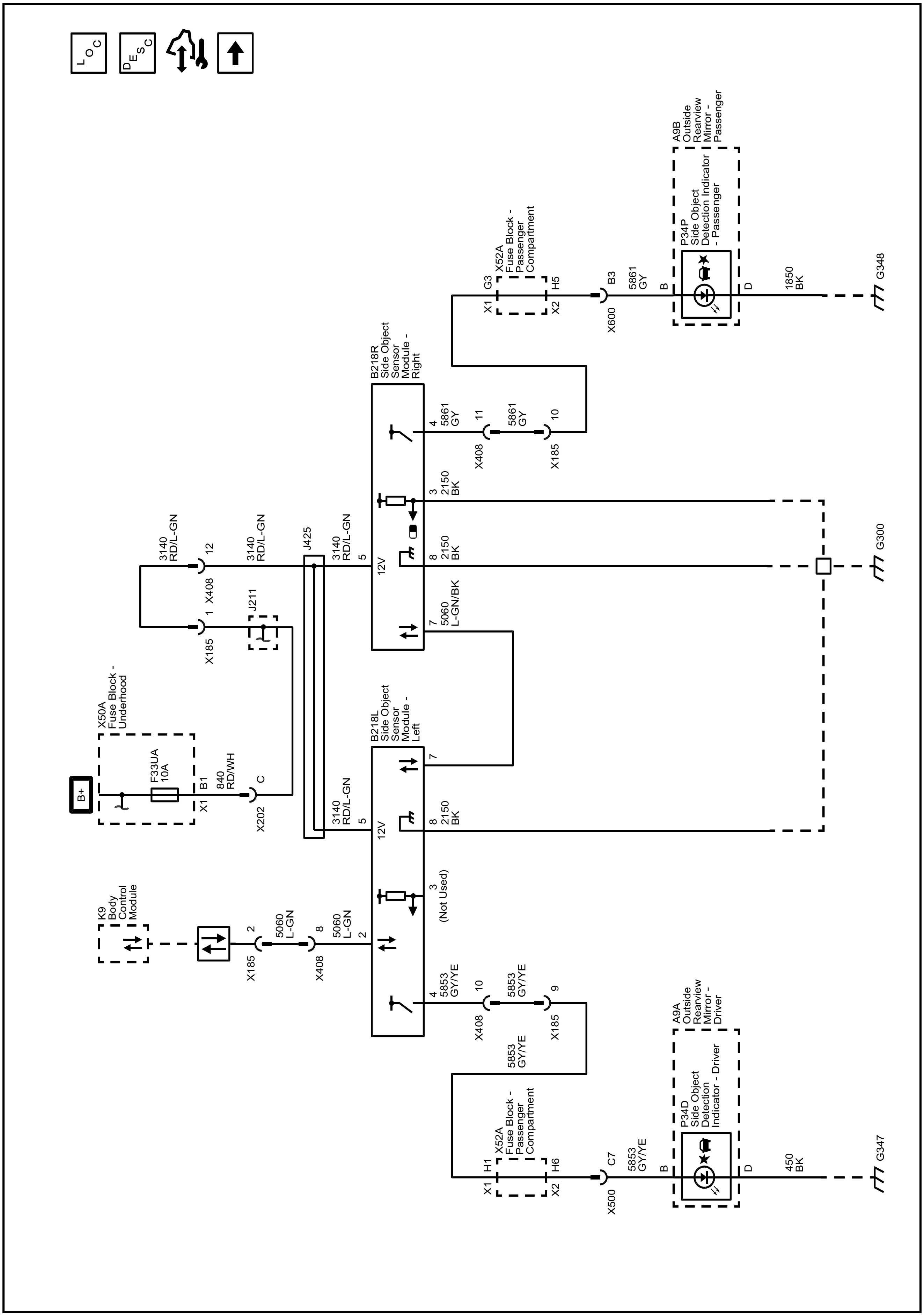
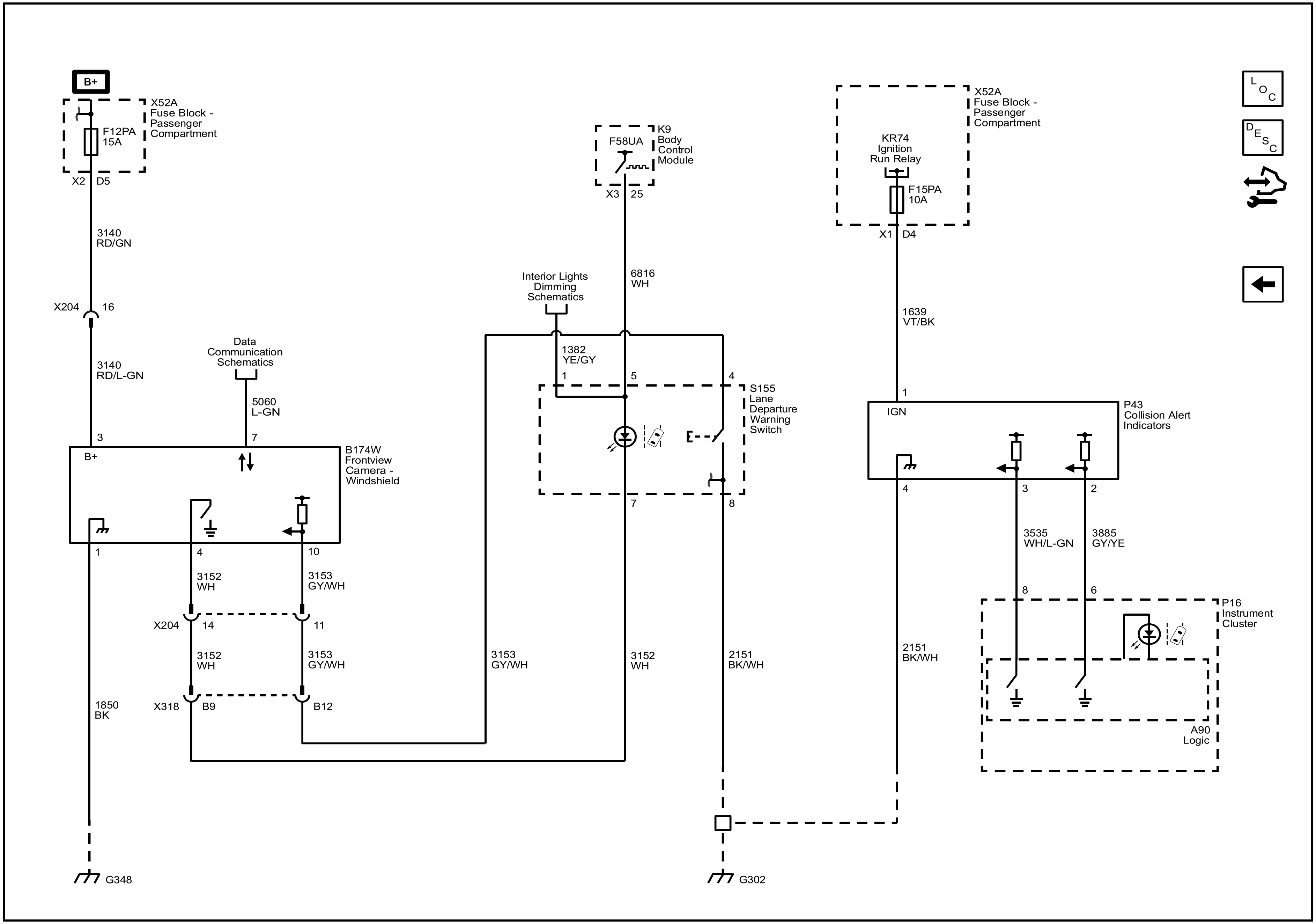
Driver Assistance Systems

Schematic and Routing Diagrams

Driver Assistance Systems Schematics (Side Object Detection (UFT))


4940180
LOC
DESC
B+
X50A Fuse Block - Underhood
F33UA 10A
X1
B1
840 RD/WH
C
X202
X185
1
X408
12
3140 RD/L-GN
3140 RD/L-GN
J211
J425
3140 RD/L-GN
5
12V
B218R Side Object Sensor Module - Right
4 5861 GY
11
X408
5861 GY
10
X185
3 2150 BK
8 2150 BK
7 5060 L-GN/BK
G300
X52A Fuse Block - Passenger Compartment
G3
H5
X1
X2
B3
X600
5861 GY
B
A9B Outside Rearview Mirror - Passenger
P34P Side Object Detection Indicator - Passenger
D
1850 BK
G348
K9 Body Control Module
X185
2
5060 L-GN
8
X408
5060 L-GN
2
3 (Not Used)
3140 RD/L-GN
5
12V
8 2150 BK
7
B218L Side Object Sensor Module - Left
4 5853 GY/YE
10
X408
5853 GY/YE
9
X185
5853 GY/YE
X52A Fuse Block - Passenger Compartment
H1
H6
X1
X2
C7
X500
5853 GY/YE
B
A9A Outside Rearview Mirror - Driver
P34D Side Object Detection Indicator - Driver
D
450 BK
G347

Driver Assistance Systems Schematics (Lane Departure Warning (UFL))


B+
X52A
Fuse Block -
Passenger
Compartment
F12PA
15A
X2 D5
3140
RD/GN
X204 16
3140
RD/L-GN
3
B+
Data
Communication
Schematics
5060
L-GN
7
B174W
Frontview
Camera -
Windshield
1
4
10
3152
WH
3153
GY/WH
X204 14
11
X318 B9
B12
1850
BK
G348
F58UA
K9
Body
Control
Module
X3 25
6816
WH
Interior Lights
Dimming
Schematics
1382
YE/GY
1
5
4
S155
Lane
Departure
Warning
Switch
7
8
3153
GY/WH
3152
WH
2151
BK/WH
G302
X52A
Fuse Block -
Passenger
Compartment
KR74
Ignition
Run Relay
F15PA
10A
X1 D4
1639
VT/BK
1
IGN
P43
Collision Alert
Indicators
4
3
2
3535
WH/L-GN
3885
GY/YE
8
6
P16
Instrument
Cluster
A90
Logic
2151
BK/WH
L O C
D E S C

5053716

Description and Operation

Forward Collision Alert Description and Operation

The forward collision alert system is a convenience feature of the frontview camera module that issues a warning to the driver when a potential collision risk exists. The frontview camera module is located behind the windshield, looking out at the road ahead and detecting vehicles directly ahead. When the system detects a vehicle in the path ahead, the green vehicle ahead indicator is illuminated on the instrument cluster. When approaching another vehicle too rapidly, the collision alert symbol will flash in the head-up display (if equipped) or a series of red collision alert indicators will flash. An audible alert sound will simultaneously sound or the safety alert seat will provide haptic feedback. The visual alert cannot be changed, but the driver can select between audible or haptic alerts in the vehicle personalization menus. The forward collision alert system can also be turned on or off through the vehicle personalization menus. See the vehicle owner manual for more detailed information on vehicle personalization.

Forward collision alert does not provide a warning to help avoid a crash, unless it detects a vehicle. Forward collision alert may not detect a vehicle ahead if the frontview camera module is blocked by dirt, snow, or ice, or if the windshield is damaged. It may also not detect a vehicle on winding or hilly roads, or in conditions that can limit visibility such as fog, rain, or snow, or if the headlamps or windshield are not cleaned or in proper condition. Keep the windshield, headlamps, and frontview camera module clean and in good repair.

Forward collision alert may provide unnecessary alerts for turning vehicles, vehicles in other lanes, objects that are not vehicles, or shadows. These alerts are normal operation and the vehicle does not need service.

Forward Collision System Reduced Message

This message displays when Forward Automatic Braking or Front Automatic Braking has been set to the "Alert" setting. This setting disables most automatic braking functions. This is normal operation when the **Forward Collision System** setting is set to **OFF** or **ALERT**. This message is not present when the **Forward Collision System** is set to **Alert and Brake**.

Front Automatic Braking (UHY) (if equipped)

When the system detects a vehicle ahead in your path that is traveling in the same direction that you may be about to crash into, it can provide a boost to braking or automatically brake the vehicle. This can help avoid or lessen the severity of crashes when driving in a forward gear. Depending on the situation, the vehicle may automatically brake moderately or hard. This front automatic braking can only occur if a vehicle is detected.

The system works when driving in a forward gear between 8 km/h (5 mph) and 60 km/h (37 mph), or on vehicles with Adaptive Cruise Control above 2 mph (4 km/h). It can detect vehicles up to approximately 60 m (197 ft).

Pedestrian Collision Mitigation Braking (UKJ) (if equipped) is a feature subset of Front Impact Mitigation that aims to reduce the likelihood of collisions or reduce the impact speed with pedestrians in the forward direction by the following:

- Determining the forward path of the vehicle
- Monitoring this path with respect to pedestrians in or near the forward path
- When appropriate, providing pedestrian detection pedestrian and alerts to the driver, and if certain conditions are met, providing autonomous braking to help avoid or reducing the impact speed of a collision with the pedestrian

This system is not intended to replace the driver responsibility paying careful attention to the forward scene for pedestrian, vehicle, and other potential hazards. Its function is limited to supplemental use only to assist rather than replace the driver in responding to pedestrians in the forward scene.

The Pedestrian Collision Mitigation Braking system can detect and alert to up to 10 pedestrians in a forward gear at speeds between 5 mph (8 km/h) and 50 mph (80 km/h). During daytime driving, the system detects pedestrians up to a distance of approximately 40 m (131 ft). Pedestrians must be at least 31.5 inches (80 cm) tall to be detected.

No added components are required for Front Automatic Braking, or Pedestrian Collision Mitigation Braking. Refer to Owner Manual – Driver Assistance Systems for more details.

The forward collision alert system is made up of the following components:

- Frontview camera module
- Forward collision alert switch
- Instrument cluster
- Collision alert indicators (without UV6)
- Head-up display (with UV6)
- Infotainment system
- Safety alert seat, if equipped

Frontview Camera Module

The frontview camera module detects vehicles in front of the vehicle. The frontview camera module communicates with the instrument cluster via serial data to illuminate the appropriate amber or green vehicle ahead indicator, collision alert symbol will flash in the head-up display, or collision alert indicators. The frontview camera module also communicates via serial data with the infotainment system and memory seat module to request audible or haptic alerts.

Forward Collision Alert Switch

The forward collision alert switch provides an input to the frontview camera module to select the alert timing sensitivity when approaching another vehicle too rapidly. The forward collision alert switch is part of the steering wheel controls switch – left and provides inputs to the body control module (BCM), which then communicates with the frontview camera module via serial data.

The BCM applies a reference voltage and monitors a low signal voltage from the normally open switch. When the switch is pressed, the signal circuit is pulled low through a specific series of resistors, indicating that the system has been requested to change the alert timing sensitivity. The first button press will show the current alert timing setting on the driver information center. With every subsequent button press, the alert timing sensitivity is changed.

Instrument Cluster

The instrument cluster communicates via serial data with the frontview camera module and will illuminate the amber or green vehicle ahead indicator as requested by the frontview camera module. The instrument cluster also controls the head-up display or the collision alert indicators.

Collision Alert Indicators (without UV6) (if equipped)

The collision alert indicators are a series of red LEDs that will flash when approaching another vehicle too rapidly. The collision alert indicators are located in the upper instrument panel area and reflect off the windshield when illuminated.

The collision alert indicators receive power and ground and are discretely controlled by the instrument cluster through a pair of low control circuits. When requested by the frontview camera module, the instrument panel will pulse the low control circuits, flashing the LEDs as a visual alert that another vehicle is being approached too rapidly.

Head-up Display (with UV6) (if equipped)

The instrument cluster controls the head-up display via serial data. The instrument cluster will command the head-up display to flash the collision alert indicator as a visual alert when approaching another vehicle too rapidly as requested by the frontview camera module.

Infotainment System

The infotainment system controls the audible alerts for the forward collision alert system. If the host vehicle is approaching another vehicle too rapidly, the frontview camera module will command the infotainment system issue an audible alert to the driver.

Safety Alert Seat (if equipped)

The memory seat module controls the haptic alert provided by the seats. If the vehicle is approaching another vehicle too quickly, the frontview camera module will command the memory seat module to pulse both sides of the seat.

Lane Departure Warning Description and Operation

The lane departure warning system is a convenience feature that utilizes the frontview camera module to determine if the vehicle has unintentionally crossed a lane marking and issue a warning. The frontview camera module is located behind the windshield, looking out at the road ahead and detecting any lane markings. When the vehicle unintentionally leaves a detected lane, visual and audible or haptic (if equipped) alerts are given to the driver. The visual alert cannot be changed, but the driver can select between audible or haptic alerts (if equipped)vin the vehicle personalization menus. Refer to the vehicle owner's manual for vehicle personalization options.

The lane departure warning system utilizes the following components:

- Frontview camera module
- Lane departure warning switch
- Instrument cluster
- Infotainment system
- Safety alert seat, if equipped

Frontview Camera Module

The frontview camera module detects visual queues such as lane markings. When it is determined that the vehicle has unintentionally moved outside of the lane, visual and audible or haptic (if equipped) warning is given to the driver. The frontview camera module receives an input from the lane departure warning switch and controls the lane departure warning switch indicator output. The frontview camera module also communicates via serial data with the instrument cluster, infotainment system, and memory seat module to request visual, audible, and/or haptic alerts.

Lane Departure Warning Switch

The lane departure warning switch provides an input to the frontview camera module to turn the lane departure warning system on and off. The frontview camera module applies voltage and monitors the parking assist switch signal circuit. The lane departure warning switch is a normally open switch. With the switch open, voltage seen at the frontview camera module is high. When the lane departure warning switch is pressed, the switch is closed and the signal circuit is pulled to ground. With the switch closed, voltage seen at the frontview camera module is low. The frontview camera module will respond to this by activating or deactivating the lane departure warning system.

The lane departure warning switch also utilizes the lane departure warning indicator, which is part of the lane departure warning switch and is controlled by the frontview camera module to indicate the operational status of the lane departure warning system. When the lane departure warning is enabled, the frontview camera module will illuminate the indicator on the switch. The indicator receives voltage through a high control circuit from the body control module (BCM) and is controlled through a low control circuit by the frontview camera module.

Instrument Cluster

The instrument cluster contains green and amber lane departure warning indicators. These indicators inform the driver of the current status of the lane departure warning system and are controlled via serial data by the frontview camera module. When the vehicle speed is above 56 km/h (35 MPH) and the system has detected the required lane markings and is ready to assist, the green indicator will be illuminated. If the vehicle has unintentionally left the lane, the amber indicator will flash.

Infotainment System

The infotainment system controls the audible alert for the lane departure warning. If the vehicle has unintentionally left the lane, the frontview camera module will request via serial data an audible alert to the driver through the infotainment system

Safety Alert Seat

The memory seat module controls the haptic alert provided by the seats. If the vehicle has unintentionally left the lane, the memory seat module will command pulses to the left or right side of the seat, depending on the lane departure direction.

Lane Departure Warning Operation

System Operational Modes

- Off State: The system has been turned off by the driver using the lane departure warning switch. The lane departure warning indicator located on the lane departure warning switch will not be illuminated.
- Not Ready To Assist: The system is enabled and the lane departure warning indicator located on the lane departure warning switch is illuminated, but the system is not ready to assist because one of the following conditions is true:
  - Vehicle speed is less than 56 km/h (35 MPH). The system is designed to function at speeds greater than 56 km/h (35 MPH).
  - The system cannot detect lane markings. This may be because there are no lane markings or the lane markings cannot be determined due to snow, rain, or other driving conditions.
  - The windshield area in front of the camera or the camera lens is blocked by fog, dirt, damage to the windshield, or other elements that may prevent the camera from detecting lane markings.
- Ready To Assist: The system is enabled and ready to warn of the unintentional lane crossing. The system is ready to assist when the green lane departure warning indicator is illuminated on the instrument cluster.

Lane Crossing Alerts

- A lane crossing alert consists of the following:
  - The amber lane departure warning indicator located on instrument cluster will flash.
  - Three chimes are activated through the infotainment system or three pulses to the left or right side of the seat, if equipped with safety alert seat
- When any of the following conditions occurs, the system will not give alerts:
  - The appropriate turn signal is activated. An activated turn signal is interpreted as an intentional lane crossing.
  - The operator makes an intentional steering maneuver.
  - The operator makes an intentional accelerating maneuver.
  - The operator makes an intentional braking maneuver.

Lane Keep Assist Description and Operation

Note:

- The Lane Keep Assist system DOES NOT continuously steer the vehicle
- The Lane Keep Assist system replaces Lane Departure Warning System
- Lane Departure Warning will have more alerts than Lane Keep Assist (visual, audible, and haptic warning

The system assists driver to keep vehicle in-lane by providing a steering push back to the vehicle when an unintended lane departure is detected. See the user’s manual for more detailed information on vehicle personalization.

The lane keep assist system is made up of the following components:

- Front view camera module
- Lane Keep Assist switch / control indicator
- Instrument cluster / Vehicle Direction Display
- Radio
- Safety Alert Seat (if equipped)
- Yaw rate sensor
- Electric power steering

Front View Camera Module

The camera detects visual queues such as lane markings. When it is determined that the vehicle has unintentionally moved outside of the lane, visual, and audible or haptic warning is given to the driver. The front view camera module receives an input from the lane keep assist switch and controls the lane keep assist switch indicator output. The front view camera module also communicates via serial data with the instrument cluster, radio, and memory seat module to request visual, and audible or haptic alerts.

Lane Keep Assist Switch

The lane keep assist switch provides an input to the front view camera module to turn the lane keep assist system ON and OFF. The front view camera module provides a signal voltage to the normally open momentary switch. When the switch is pressed, the signal circuit is pulled to ground, indicating to the front view camera module that the system has been requested to turn ON or OFF. The lane keep assist switch also contains the lane keep assist switch indicator, which is controlled by the front view camera module to indicate the ON and OFF status of the lane keep assist system. When the system has been enabled by the lane keep assist switch, the front view camera module applies ground to the switch indicator and illuminates the LED. The location of the lane keep assist switch can vary with different vehicles. For the exact location please refer to the user's manual.

Instrument Cluster

The vehicle direction display contains green and amber lane keep assist indicators. These indicate to the driver the current status of the lane keep assist system and are controlled via serial data by the front view camera module. When the vehicle speed is above 56 km/h

(35 MPH) and the system has detected the required lane markings and is ready to assist, the green indicator will be illuminated on the vehicle direction display. If the vehicle has unintentionally left the lane, the amber indicator will flash.

Radio

The radio controls the audible alert for the lane keep assist. If the vehicle has unintentionally left the lane, the radio will command three beeps as an audible alert to the driver.

Safety Alert Seat (if equipped)

The memory seat module controls the haptic alert provided by the seats. If the vehicle has unintentionally left the lane, and the Electric Power Steering determines the corrective action requires an above threshold amount of effort, the memory seat module will command three pulses to the left or right side of the seat, depending on the lane departure direction.

Yaw Rate Sensor

The steering intervention is based on the forward looking sensor outputs, such as lateral offset of the vehicle, relative yaw angle and time to line crossing. Over that, other vehicle dynamics signals are needed, e.g. velocity, steering angle, yaw rate for the purpose of a driver suppression.

Electric Power Steering

The electric power steering uses a torque sensor to detect driver inputs and relays that information to the frontview camera module. The electric power steering is used to provide steering push back.

Lane Keep Assist Operation

There is two stages of warning/intervention for the driver: The first stage is the steering push back, if the lane keep assist system detects that the vehicle will cross the lane marking despite it is intervening, a second stage warning shall be issued. The second stage warning is a chime or a haptic seat vibration, **if equipped** with haptic seats. If a haptic seat vibration is used as stage 2 warning, the vibration shall take place on the side of the seat, where the lane departure happened.

System operation can be described by the following modes:

- Off State: The system has been turned off by the driver using the lane keep assist switch. The lane keep assist indicator will not be illuminated.
- Not Ready To Assist: The system is enabled and the lane keep assist indicator is illuminated, but not ready to assist when any of the following conditions is true:
  - Vehicle speed is less than 37 MPH (60 km/h) . The system is designed to function at speeds greater than 37 MPH (60 km/h).
  - The system cannot detect lane markings. This may be because there are no lane markings, as on a country road or that the lane markings cannot be determined due to snow, rain, or other driving conditions.
  - The windshield area in front of the camera or the camera lens is blocked by fog, dirt, damage to the windshield or other elements that may prevent the camera from detecting lane markings.
- Ready To Assist: The system is enabled and ready to warn of the unintentional lane crossing. The system is ready to assist when the green lane keep assist indicator is illuminated on the vehicle direction display.

Lane Crossing Alerts

- When one of the following conditions are met, the system will not give alerts:
  - The correct turn signal is activated. An activated turn signal is interpreted as an intentional lane crossing.
  - The operator makes an intentional steering maneuver.
  - The operator makes an intentional accelerating maneuver.
  - The operator makes an intentional braking maneuver.
- Lane crossing alert consists of the following:
  - The amber lane keep assist indicator will flash.
  - “push-back” steering torque input (or nudge) from Electric Power Steering to help prevent a lane departure
  - Three chimes are activated through the radio.
  - or **if equipped**, three pulses to the left or right side of the seat.

Lane Keep Assist System Driver Information Center Messages

The front view camera module can command the driver information center to display the various messages to alert the driver of a system concern or status information. For detailed information about the possible messages please refer to the user's manual.

Side Blind Zone Alert Description and Operation

Note: When the vehicle is new, or the system has been programmed, there may be intermittent false alerts for up to 644 km (400 miles). The system is in an auto learn mode at this time.

The side blind zone alert system is a lane-changing aid that assists drivers with avoiding crashes that occur with vehicles in the side blind zone (or spot) areas. When the vehicle is moving forward, the left or right side mirror display will illuminate if a vehicle is detected in the blind zone. If the turn signal is activated and a vehicle is also detected on the same side, the display will flash as an extra warning not to change lanes. The side blind zone alert monitors the blind sport area along side the vehicle, approximately 3.5 m (11 ft) from the side of the vehicle, extending 5 m (16 ft) behind the mid-point of the vehicle.

The lane change alert system is a lane-changing aid that assists drivers with avoiding lane change crashes that occur with vehicles rapidly approaching the side blind zone (or spot) areas from behind. The lane change alert warning display will illuminate in the corresponding outside rearview mirror and will flash as an extra warning not to change lanes if the turn signal is on. The lane change alert system monitors the lane area along side the vehicle, approximately 3.5 m (11 ft) from the side of the vehicle, extending up 70 m (230 ft) beyond the rear bumper.

While in reverse, the rear cross traffic alert system displays a triangle with a left or right pointing arrow on the info display module to warn of traffic coming from the left or right. This system detects objects coming from up to 20 m (65 ft) from the left or right side of the vehicle. When an object is detected, either three beeps sound from the left or right or three safety alert seat pulses occur on the left or right side, depending on the direction of the detected vehicle.

Side Blind Zone Alert System Components

The side blind zone alert system is made up of the following components:

- Side object sensor module – left
- Side object sensor module – right
- Driver outside rearview mirror
- Passenger outside rearview mirror
- Infotainment system
- Safety alert seat (If equipped)

Side Object Sensor Module

The side object sensor modules are located on each side of the vehicle behind the rear fascia and are not directly visible from outside the vehicle. The sensors use radar to determine the presence of objects nearby. The side object sensor module – left is the master that communicates on vehicle serial data bus. There is a private serial data bus between the left and right sensors. The scan tool is able to communicate only with the left sensor. The sensors are unique and not interchangeable from side to side.

The side object sensor module – right controls both side blind zone indicators located on the left and right outside rearview mirrors. Each indicators receives ground at all times. When an object has been detected in the vehicle's blind spot or a vehicle is fast approaching from the rear, the side object sensor module – right will apply voltage to the appropriate indicator, illuminating it. If the turn signal is on, indicating the driver intends to change lanes, side object sensor module – right will flash the appropriate indicator as an additional means of alert.

Outside Rearview Mirrors

The outside rearview mirrors contain an icon that is backlit with high intensity, amber-colored LED's located on the mirror surface. The display brightness adapts to day and night conditions. The side object sensor module – right controls both side blind zone indicators.

Infotainment System

The infotainment system controls the audible alerts for the rear cross traffic alert system. If cross traffic is present, the side object sensor module – left will command the infotainment system issue an audible alert to the driver. The audible alert will sound from the side of the vehicle where traffic is approaching from.

The infotainment system also includes the info display module. When in R, any cross traffic warnings will be overlaid over the rear vision camera image on the info display module.

Safety Alert Seat (If Equipped)

The memory seat module controls the haptic alert provided by the seats. If cross traffic is present, the side object sensor module – left will command the safety alert seat issue a haptic alert to the driver on the side of the seat where traffic is approaching from.

Side Blind Zone Alert Operation

When the vehicle is started, both side blind zone indicators located on the left and right outside rearview mirrors will briefly illuminate to indicate that the system is operating. The system is designed to detect objects in an area approximately between 0.5 m (1.5 ft) and 2 m (6 ft) off the ground. The side blind zone alert monitors the blind sport area along side the vehicle, approximately 3.5 m (11 ft) from the side of the vehicle, extending 5 m (16 ft) behind the mid-point of the vehicle. The system may light up an indicator due to guardrails, signs, trees, shrubs, and other non-moving objects. This is normal system operation; the vehicle does not need service.

When the system detects a vehicle in the side blind zone while driving forward, an amber warning symbol will illuminate on the appropriate outside mirror. This indicates that it may be unsafe to change lanes. If the driver activates the turn signal, the amber warning symbol starts flashing as an extra warning not to change lanes.

Foul weather may affect the operation of the side blind zone system. Occasional missed alerts can occur under normal circumstances and will increase in wet conditions. The number of missed alerts will increase with increased rainfall or road spray. Heavy rainfall, as well as mud, dirt, snow, ice, or slush build-up on the rear fascia, can completely disable the system.

If the vehicle is towing a trailer or has an object such as a bicycle rack attached to the rear of the vehicle, the side blind zone system may not function properly and the indicators may illuminate intermittently or remain illuminated all the time.

Lane Change Alert Operation

Lane Change Alert (LCA) can be disabled in vehicle personalized settings, this will also disable the Side Blind Zone Alert (SBZA) system. When disabled, the bulb check of the mirror indicators will also be disabled. A driver information center message will be displayed at start up when the LCA system is disabled. This feature must be enabled prior to trying to diagnose the system.

The lane change alert system shall detect and report objects in the driver's blind zone, or approaching on either side of the vehicle, within a specified lane change zone. The system is designed to alert the driver, with a visual display placed on the side view mirror, to the presence of objects of interest that may not be visible in the inside rearview mirror and outside rear view mirrors. Although this system is intended to help drivers avoid lane change crashes, it does not replace driver vision and therefore should be considered a lane change aid. Even with the lane change alert system, the driver must check carefully for objects outside of the reporting zone before changing lanes. In the event that the system senses a malfunction through its diagnostic routines, the system will be disabled and the driver will be visually notified.

When the vehicle is started, both outside mirror displays will briefly come on to indicate that the system is operating. The warning symbols will vary brightness based on the ambient light conditions. Lane change alert is active when the vehicle is out of park or the parking brake is off on manual transmission vehicles. When the system detects a vehicle in the side blind zone or approaching in the lane change alert zone while driving forward, an amber warning symbol will light up in the appropriate outside mirror. This indicates that it may be unsafe to change lanes. If the driver then activates the turn signal, the amber warning symbol starts flashing as an extra warning not to change lanes.

The system is designed to detect objects of interest as small as a 125cc motorcycle with rider. The detection zone starts at the outside rearview mirror and extends out to 3.5 m (11 ft) at the back corner of the vehicle and 70 m (230 ft) behind the vehicle at a height between 0.5 m (1.5 ft) and 2.0 m (6 ft) above the ground. The system may light up an indicator due to guardrails, signs, trees, shrubs, and other non-moving objects. This is normal system operation; the vehicle does not need service.

If the vehicle is towing a trailer or has an object such as a bicycle rack attached to the rear of the vehicle, the lane change alert system may not function properly and the indicators may illuminate intermittently or remain illuminated all the time. The driver information center may display "SIDE DETECTION SYSTEM UNAVAILABLE".

Foul weather may affect the operation of the lane change alert system. Occasional missed alerts can occur under normal circumstances and will increase in wet conditions. The number of missed alerts will increase with increased rainfall or road spray. Heavy rainfall, as well as mud, dirt, snow, ice, or slush build-up on the rear fascia, can completely disable the system. The warning symbols will vary brightness based on the ambient light conditions.

Rear Cross Traffic Alert Operation

The rear cross traffic alert system is designed to detect moving objects approaching the side of the vehicle while backing up. The detection zone extends approximately 30 m (99 ft) from the rear corner of the car and covers an area from behind the vehicle to 125 degrees towards the front at a height of 0.45 m (1.5 ft) to 2 m (6.5 ft) above ground. The system operates when vehicle speed is 10 km/h (6 mph) or less and is designed to detect objects moving at speeds up to 36 km/h (22 mph).

When the vehicle is backing up, the side object sensors receive energy that is reflected from external objects and determine if the objects are objects of interest or not. The system may at times detect pedestrians, shopping carts, or similar moving objects. This is normal and should not be considered as a false alert or problem with the system. The rear cross traffic alert system will estimate vehicle travel trajectory and use the information in conjunction with object travel trajectory information to determine if there is a potential collision between the vehicle and the object of interest. The rear cross traffic alert function will only alert on objects that pose a potential collision with the host vehicle. The system is not designed to provide an alert to objects that have no potential collision with vehicle.

If the vehicle is towing a trailer or has an object such as a bicycle rack attached to the rear of the vehicle, the rear cross traffic alert system may not function properly.

Foul weather may affect the operation of the rear cross traffic alert system. Occasional missed alerts can occur under normal circumstances and will increase in wet conditions. The number of missed alerts will increase with increased rainfall or road spray. Heavy rainfall, as well as mud, dirt, snow, ice, or slush build-up on the rear fascia, can completely disable the system.

Side Blind Zone Alert Driver Information Center Messages

Note: Not all messages will apply

SIDE BLIND ZONE ALERT OFF

This message indicates that the system has been disabled through the driver information center. Refer to the vehicle owners manual for instructions on how to set personalization options on the driver information center.

LANE CHANGE ALERT OFF

This message indicates that the system has been disabled through the driver information center. Refer to the vehicle owners manual for instructions on how to set personalization options on the driver information center.

REAR CROSS TRAFFIC ALERT OFF

This message indicates that the system has been disabled through the driver information center. Refer to the vehicle owners manual for instructions on how to set personalization options on the driver information center.

SERVICE SIDE DETECTION SYSTEM

This message indicates that the system requires service. When the message is displayed, the indicators will remain illuminated at all times, notifying the driver that the side blind zone and lane change alert should not be relied upon when changing lanes and the rear cross traffic alert will also be inoperative

SIDE DETECTION SYSTEM UNAVAILABLE

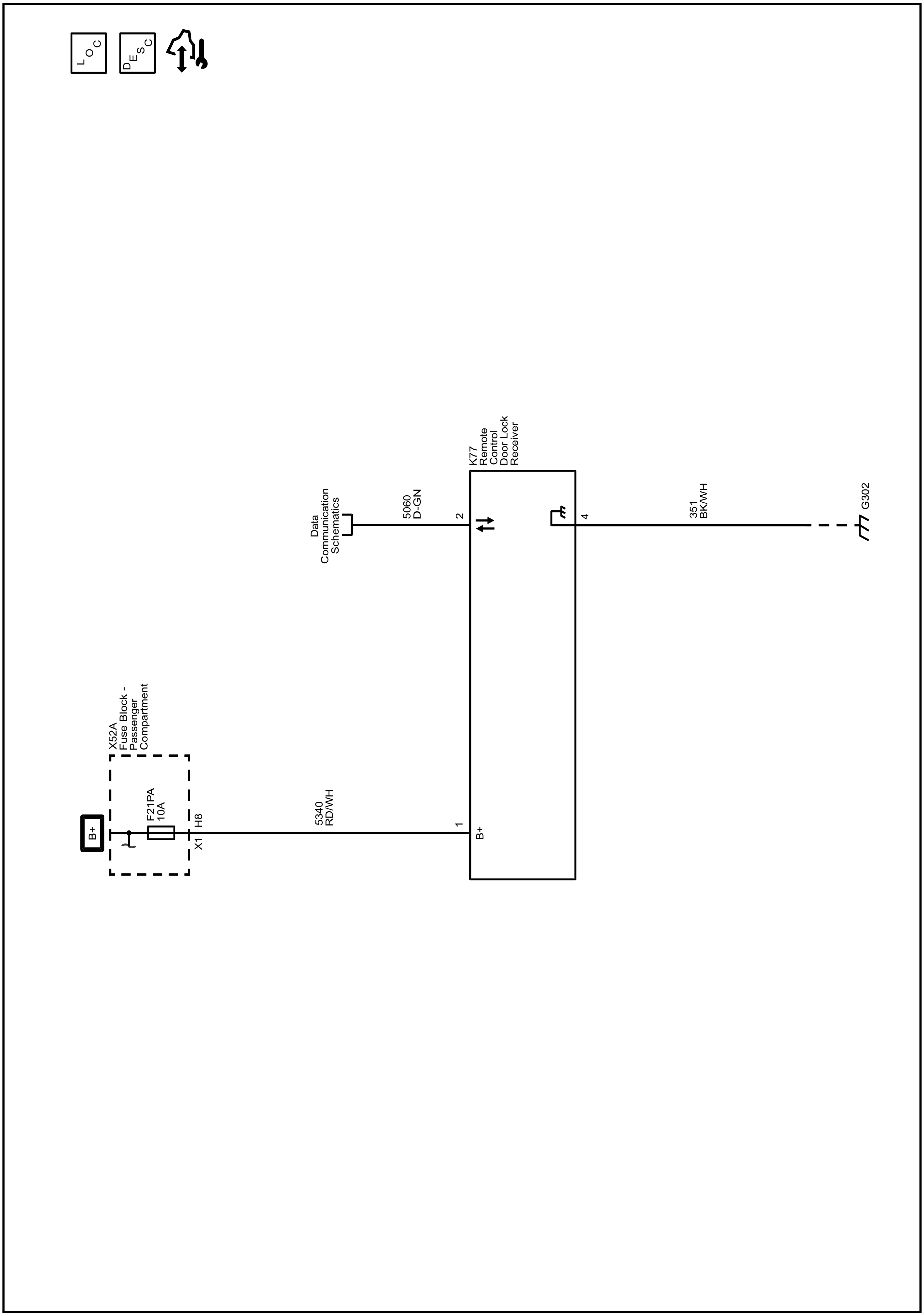
This message indicates that the system has been temporarily disabled because the sensor is blocked or can otherwise not accurately detect vehicles or objects. Such instances may be mud, dirt, snow, ice, or slush build-up on the rear fascia, heavy rainfall, excessive road spray, fascia damage or stickers.

The rear cross traffic alert system will read the GPS latitude and longitude on the serial data bus and calculate if the vehicle is within a Radio Astronomy zone. These zones are located in **Europe** and **Japan** and require the sensors to be turned off. The “Side Detection System Unavailable” message will be displayed to the driver when this occurs.

Remote Functions

Schematic and Routing Diagrams

Remote Function Schematics (Keyless Entry (ATG or UJM))


4940182
LOC
DESC
B+
X52A
Fuse Block -
Passenger
Compartment
F21PA
10A
X1 H8
5340
RD/WH
1
B+
K77
Remote
Control
Door Lock
Receiver
Data
Communication
Schematics
5060
D-GN
2
4
351
BK/WH
G302

Description and Operation

Keyless Entry System Description and Operation

The keyless entry system is a vehicle entry device. The keyless entry system is used in conjunction with the body control module (BCM) to remotely activate certain vehicle features. Keyless entry will lock/unlock the doors when a corresponding button on the keyless entry transmitter is pressed. This is accomplished by the transmitter sending a radio frequency to the remote control door lock receiver (RCDLR). The RCDLR interprets the signal and activates the requested function via a serial data message to the BCM. A low transmitter or vehicle battery or radio frequency (RF) interference from aftermarket devices, such as 2-way radios, power inverters, computers, etc., may cause a system malfunction. High RF traffic areas may also cause interference that could lead to a malfunction. Keyless entry allows you to operate the following components:

- Door locks
- Cargo door unlock
- Vehicle locator/Panic alarm
- Illuminated entry lamps

The keyless entry system has the following components:

- Keyless entry transmitters
- BCM
- RCDLR

Keyless Entry Transmitters

The keyless entry transmitter are used to lock and unlock the vehicle doors from a distance of up to 65 feet (20 m) away. Up to 8 transmitters may be programmed to a single vehicle.

OnStar® Remote Link

A vehicle operator may have the ability to perform some of the keyless entry functions using applications on personal devices such as smart phones. Refer to OnStar Description and Operation.

Remote Control Door Lock Receiver (RCDLR)

The remote control door lock receiver (RCDLR) is a multifunction module that operates both the keyless entry system as well as the tire pressure monitoring (TPM) system. The RCDLR has an internal antenna that is used to receive radio frequency (RF) communications sent by the keyless entry transmitters. When an RF message is received from a keyless entry transmitter, the RCDLR interprets this signal and will request via serial data that the body control module (BCM) perform the specific function, i.e. door lock, door unlock, or vehicle locate. The RCDLR also receives RF signals from the TPM sensors located at each wheel.

Unlock Driver Door Only

Momentarily press the transmitter UNLOCK button in order to perform the following functions:

- Unlock only the driver door.
- Illuminate the interior lamps for a determined length of time, or until the ignition is turned ON.
- Flash the exterior lights, if enabled through personalization.

Unlock All Doors – Second Operation

Momentarily press the transmitter UNLOCK button a second time, within 5 seconds of the first press, to perform the following functions:

- Unlock the remaining doors.
- Unlock the cargo doors.

Cargo Door Unlock

Momentarily press the transmitter cargo door unlock button a second time, within 5 seconds of the first press, to perform the following function:

Unlock only the cargo doors.

Lock All Doors

Press the transmitter LOCK button to perform the following functions:

- Lock all vehicle doors.
- Immediately turn OFF the interior lamps.
- Flash the exterior lights, if enabled through personalization.
- Chirp the horn, if enabled through personalization.

Vehicle Locator/Panic Alarm

A single press of the panic button performs the following functions. Some functions may be dependent on personalization settings:

- Pulse the horn three times.
- Flash the exterior lamps three times.

A press and hold of the panic button performs the following functions:

- Illuminate the interior lamps.
- Pulse the horn and flash the exterior lamps for 30 second or until the following conditions occur:
  - – The panic button is pressed.
  - – The ignition switch is turned to the RUN position with a valid key.

Remote Vehicle Start (RVS) – if equipped

The remote vehicle start (RVS) function allows engine starting while not in the vehicle. It also allows the vehicle HVAC system and other vehicle systems to enable, providing a comfortable vehicle upon entry. RVS functions have an operating range of up to 195 feet, depending on conditions. The RVS sequence begins by pressing and releasing the lock button and then pressing and holding the RVS buttons on the keyless entry transmitter. The turn signal lamps will illuminate to indicate the vehicle has received the remote start request. Each time an RVS is performed, the vehicle doors are locked, however they may then be unlocked/locked with the transmitter or vehicle key at any time. Once activated, the engine is allowed to run for 10 minutes. The RVS time may be extended by an additional 10 minute by again pressing and releasing the lock button and then pressing and holding the RVS buttons on the transmitter. This feature is called a RVS continue and allows a maximum of 20 minutes of engine running. If the RVS continue is performed at 7 minutes into the initial 10 minute time-out, a total of 17 minutes of engine running would occur. The RVS event may be suspended at any time by pressing only the RVS button on the transmitter or by entering the vehicle and turning ON the hazard lamps.

In between ignition cycles, only two RVS events may occur or be attempted. Once two events or attempts have been made, future RVS events will be suspended until the vehicle is started using the ignition.

Enable/Disable RVS

Using the driver information center (DIC), RVS may be enabled or disabled as a part of vehicle personalization. Refer to the vehicle owners manual for more information.

Hood Ajar Switch

The hood switch provides status of the hood to the BCM for RVS purposes. The switch is integrated into the hood latch assembly. The hood ajar switch provides 2 separate inputs to the BCM. These separate inputs allow the BCM to actively monitor for a hood ajar switch fault.

RVS Circuit Description

The RCDLR receives a signal from the keyless entry transmitter indicating a RVS request. A message is then sent to the BCM which determines if a crank request message will be sent to the ECM to allow engine starting. To determine if conditions are correct for an RVS event, the BCM will ensure the following conditions are met:

- All vehicle doors are closed
- A valid hood ajar switch closed signal is present
- The doors are locked
- The hazard switch is OFF
- The vehicle power mode is correct
- No content theft deterrent (CTD) alarm triggers are present
- The vehicle is not in valet mode (if equipped)

When the BCM determines all conditions meet those required for an RVS event, a message is sent via serial data to the ECM. The ECM relies on the RVS message from BCM to enable RVS when the crank request signal is received. If the ECM does not receive a valid RVS message, it will not attempt to start the engine. While the ECM is in RVS mode it will suspend engine operation if any of the following additional conditions occur:

- Vehicle speed is greater than 0
- Transmission is not in PARK
- Excessive engine coolant temperature
- Low oil pressure
- The malfunction indicator lamp (MIL) is commanded ON
- Engine crank time is greater than 30 seconds
- Excessive engine speed
- Accelerator pedal position too high
- Remote start timer equals 0
- Immobilizer system indicates tamper

Keyless Entry Personalization

Vehicle lock/unlock functions and remote vehicle start (RVS) settings may be personalized. For functional descriptions and personalization instructions, refer to the vehicle owners manual.

Rolling Code

The Keyless Entry System uses rolling code technology. Rolling code technology prevents anyone from recording the message sent from the transmitter and using the message in order to gain entry to the vehicle. The term “rolling code” refers to the way that the Keyless Entry System sends and receives the signals. The transmitter sends the signal in a different order each time. The transmitter and the remote control door lock receiver (RCDLR) are synchronized to the appropriate order. If a programmed transmitter sends a signal that is not in the order that the RCDLR expects, then the transmitter is out of synchronization. This occurs after 256 presses of any transmitter button when it is out of range of the vehicle.

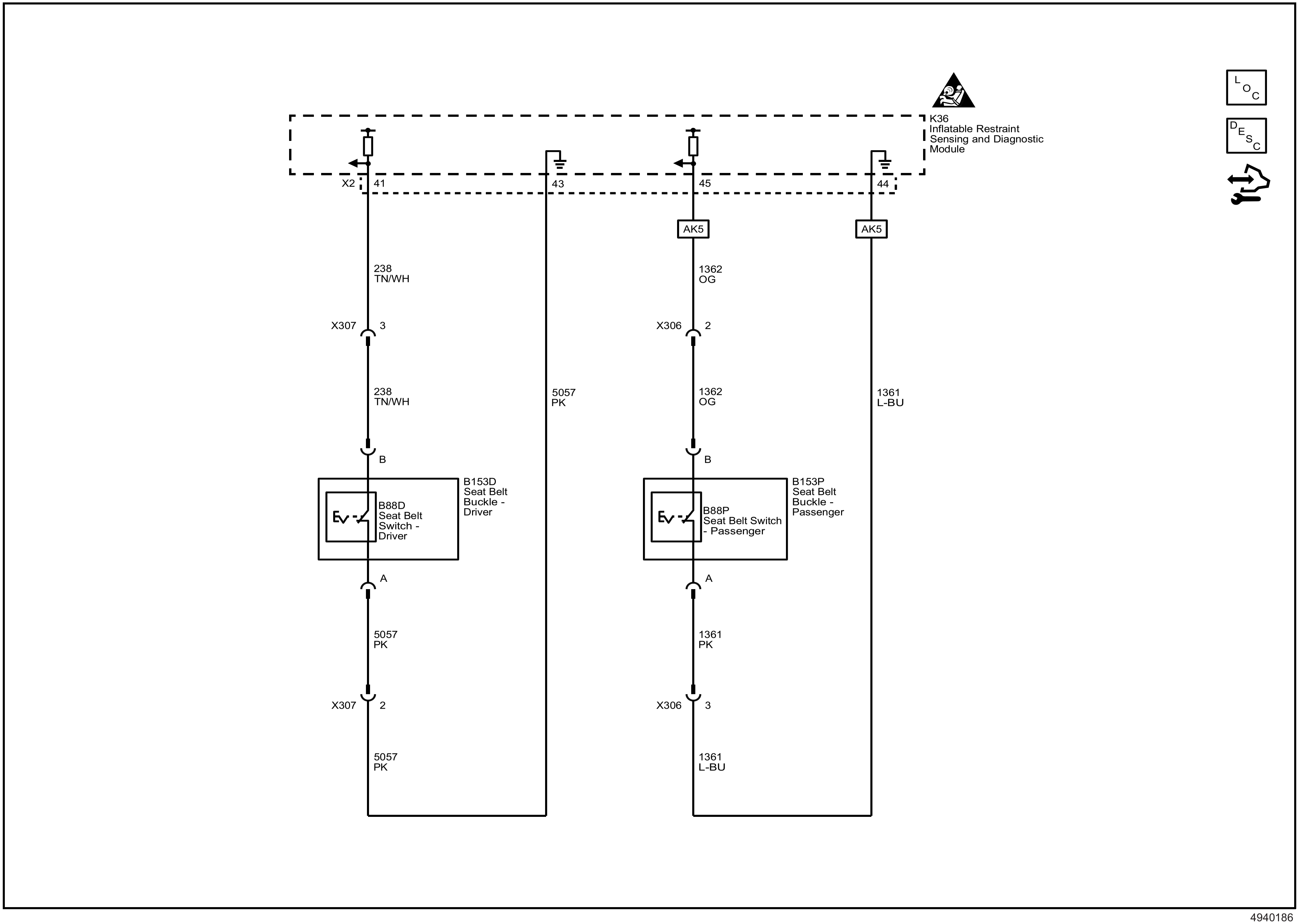
Automatic Synchronization

The keyless entry transmitters do not require a manual synchronization procedure. If needed, the transmitters automatically re-synchronize when any button on the transmitter is pressed within range of the vehicle. The transmitter will operate normally after the automatic synchronization.

Seat Belts

Schematic and Routing Diagrams

Seat Belt Schematics (Seat Belt Schematics)


L O C
D E S C
K36
Inflatable Restraint
Sensing and Diagnostic
Module
X2
41
43
45
44
AK5
AK5
238
TN/WH
X307
3
238
TN/WH
B
B153D
Seat Belt
Buckle -
Driver
B88D
Seat Belt
Switch -
Driver
A
5057
PK
X307
2
5057
PK
5057
PK
1362
OG
X306
2
1362
OG
B
B153P
Seat Belt
Buckle -
Passenger
B88P
Seat Belt Switch
- Passenger
A
1361
PK
X306
3
1361
L-BU
1361
L-BU
4940186

Description and Operation

Seat Belt System Description and Operation

Restraint System

Seat belts are the primary means of occupant restraint.

Seat belts help to keep occupants inside the passenger compartment and to gradually reduce the impact forces.

All seat belt retractors have emergency locks. The retractors remain unlocked during normal operation and under normal driving conditions. The retractors remain unlocked during normal conditions in order to allow free movement of the upper body of each occupant.

A pendulum locks the seat belt webbing into position. The pendulum causes a locking bar to engage a cog on the spool of the retractor mechanism when the following conditions occur:

- A rapid extraction of the seat belt webbing from the retractor
- An abrupt change in the vehicle speed
- An abrupt change in the vehicle direction
- Operation of the vehicle on a steep upgrade
- Operation of the vehicle on a steep downgrade

The seat belts, except for the driver seat belt, have an automatic locking feature, or a cinch feature. The cinch feature is recommended for securing a child seat. The cinch feature is engaged by fully extending the seat belt from the retractor. Once engaged, the seat belt can retract, but cannot be extended again until the cinch feature is cancelled. The cinch feature is cancelled when the seat belt has fully retracted.

This vehicle is also equipped with a supplemental inflatable restraint (SIR) system. Refer to Supplemental Inflatable Restraint System Description and Operation for a description of the seat belt retractor pretensioner.

Front Seat Belt System

The front seat belt system includes the following components:

- The driver and passenger seat belt buckles, attached to the inboard side of the seat frame
- The driver and passenger seat belt retractor pretensioners
- The driver and passenger seat belt switch located in the seat belt buckles

Seat Belt System Circuit Description

There are two fasten safety belt indicators for this vehicle. The driver fasten safety belt indicator is located on the instrument panel cluster (IPC) and the passenger fasten safety belt indicator is located in the passenger ON/OFF indicator. Both indicators are controlled by the IPC at the request of the inflatable restraint sensing and diagnostic module (SDM). The driver indicator, when initiated, will illuminate for 20 seconds followed by 55 seconds of flashing. Audible warnings will initiate simultaneously with visual warnings and last for 8 seconds. Subsequently, similar events will occur until the seat belts are buckled or the ignition is returned to the OFF position.

The driver fasten safety belt indicator will illuminate when any of the following occur:

- The driver seat belt is unbuckled while the ignition is ON.
- The driver seat belt remains unbuckled and vehicle speed is greater than 8 km/h (5 mph).
- Three minutes after previous seat belt status reminder event
- The IPC performs the displays test at the start of each ignition cycle.

Important: The front passenger seat is equipped with a passenger presence system (PPS), which detects an occupant. If the PPS detects an empty front passenger seat, then the passenger fasten safety belt indicator will be disabled.

The passenger fasten safety belt indicator will illuminate when any of the following occur:

- Twenty-five seconds after the ignition is ON and the front passenger seat belt remains unbuckled with passenger present
- The front passenger seat belt remains unbuckled with passenger present and vehicle speed is greater than 5 mph (8 km/h).
- Three minutes after previous seat belt status reminder event
- The IPC performs the displays test at the start of each ignition cycle.

Refer to Symptoms - Seat Belts in order to diagnose faults of the fasten safety belt indicators.

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Section 8

Transmission

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  Description and Operation 8-5
    Automatic Transmission Shift Lock Control
      Description and Operation 8-5

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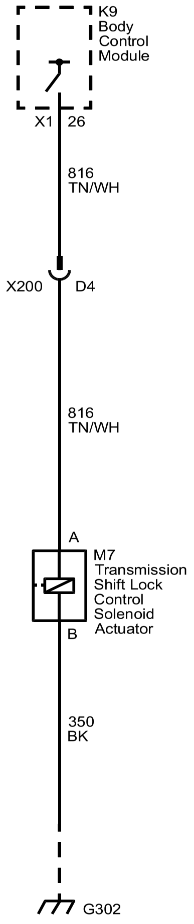
Shift Lock Control

Schematic and Routing Diagrams

Shift Lock Control Schematics (Shift Lock Control)


K9
Body
Control
Module
X1
26
816
TN/WH
X200
D4
816
TN/WH
A
M7
Transmission
Shift Lock
Control
Solenoid
Actuator
B
350
BK
G302

4940212

Description and Operation

Automatic Transmission Shift Lock Control Description and Operation

The automatic transmission shift lock control system is a safety device that prevents an inadvertent shift out of PARK when the engine is running. The driver must press the brake pedal before moving the shift lever out of the PARK position. The system consists of the following components:

- The automatic transmission shift lock solenoid (serviced as the automatic transmission shift lock actuator), as well as the body control module (BCM) and the engine control module (ECM). The shift lock solenoid is located within the floor shift control assembly with vehicles equipped with floor shift.
- The BCM controls the voltage to the shift lock control solenoid through the shift lock control solenoid controlled voltage circuit. The following conditions must be met before the BCM will remove voltage from the shift lock solenoid:
  - The ignition is in the ON position.
  - The engine control module (ECM) sends an input via GMLAN serial data to the BCM indicating the transmission is in the PARK position.
  - The BCM determines the brake pedal is applied according the brake pedal position.

Since the shift lock control solenoid is permanently grounded, the BCM supplies voltage to the automatic transmission shift lock control solenoid, mechanically locking the shift lever in the PARK position as the solenoid energizes. When the brake pedal is applied, the BCM turns the control voltage output of the shift lock control solenoid OFF, de-energizing the shift lock control solenoid. The de-energized solenoid releases the mechanical lock allowing the driver to move the shift lever out of the PARK position. When the transmission is out of the PARK position, the shift lock control solenoid remains de-energized.

During remote start operation, the BCM will energize the shift lock control circuit, locking the shift lever in the PARK position.

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